

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLI.

SATURDAY, JULY 8, 1882.

No. 2.

ORIGINAL LECTURES.

A CLINICAL LECTURE ON PNEUMONIA.

Delivered to the Clinical Class in the Mercy Hospital of Chicago, May, 1882.

By N. S. DAVIS, M.D., LL.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE IN THE CHICAGO MEDICAL COLLEGE, AND SENIOR PHYSICIAN TO THE MERCY HOSPITAL.

(Reported for THE MEDICAL NEWS.)

(Concluded from p. 3.)

Symptoms and Diagnosis.—As practitioners of medicine, you are already familiar with the general symptoms of the disease under consideration, and I need not occupy your time in recounting them. I will, therefore, mention only those which, in connection with the physical signs, are diagnostic of the disease in the several stages of its progress. The commencement of the first stage is generally marked by a chill or chilliness accompanied by deep-seated pain and sense of oppression in one side of the chest; and its progress is indicated accurately by general fever with continuance of pain and oppression in some part of the chest coincident with the ready recognition, by auscultation, of the fine dry crepitant râle, and slight increased fremitus of voice; some cough with, at first, a very scanty viscid expectoration, but, which gradually increases, and after the first twelve or eighteen hours usually shows a slight intermixture of blood. During the transition from the first to the second stage, while exudation is going on actively, the fever heat increases, the expectoration becomes more mixed with blood, the dulness on percussion and fremitus of voice increase, and the fine crepitant râle gives place to one coarser and moist, called sub-mucous. When the second or exudative stage is fully developed, and the red hepatization is complete, the general fever is at its climax, the crepitant râle has entirely ceased, giving place to the ordinary mucous râle, and decided dulness on percussion over the inflamed parts. This condition, which constitutes the climax of the disease, is usually reached between the fourth and seventh days from the initial chill. During the next two or three days, in those cases which terminate by resolution, the general febrile symptoms rapidly decline, the temperature in some falling even below the standard of health; blood disappears from the expectoration; urinary secretion becomes more abundant; breathing slower and fuller; dulness on percussion diminishes; and in some instances as the air cells first begin to reopen a return of the fine crepitant râle may again be heard at the end of the inspiratory act for one or two days. In such cases convalescence is usually well established in from seven to eleven days from the commencement of the attack. When the disease does not terminate by resolution, but has its second stage pass into a third, during which the exudative material is undergoing either purulent or caseous degeneration, the febrile symptoms, though modified in severity, are liable to continue one or two weeks longer, and the physical signs of the second stage to be equally protracted.

Treatment.—The indications to be fulfilled, or the special objects to be accomplished, in the treatment of pneumonia, vary with each successive stage in the progress of the inflammation.

In the first stage, characterized by increased excitability of texture and intense engorgement and disten-

tion of vessels, the plain indications are to allay the excitability and lessen the vascular fulness, and in the same ratio that we succeed in fulfilling these, will we lessen the amount of exudation and hepatization which is to constitute the second stage. When the latter has already supervened, however, then your leading objects must be to hasten the disintegration and promote the reabsorption of the exudative material, thereby inducing resolution before suppuration or caseous degeneration should supervene. If the latter processes do make a fair beginning, constituting the third stage, or that of gray hepatization, your main objects must be to lessen the degenerative processes and sustain the nutrition and strength of the patient. Such are the rational indications for treatment founded on the important pathological conditions present in each successive stage of the disease; but the particular means most efficient for accomplishing the several objects named, as well as the time and manner of their use, will be materially influenced by certain coincident conditions relating chiefly to the quality of the blood, and the general tonicity of the tissues. For while it is true that morbid excitability and accumulation of blood are constant elements or factors in the first stage of all acute inflammations, it must be remembered that the blood which thus accumulates in one case may differ much in its quality, and the relative proportion of its constituents, from that which accumulates in another case. So also the coexisting status of the vital affinity of the tissues, which regulates the molecular movements and general tonicity, may vary much in different cases. The composition and quality of the blood, and the vital affinity of the tissues, must be regarded, therefore, as the *variable* elements or factors in all stages of the inflammatory process. For instance, if a patient when attacked with pneumonia, has good plastic blood and an active vital affinity giving to all his tissues a good degree of tonicity, his case will present all the characteristic symptoms of an active sthenic grade of inflammation. On the other hand, if the patient when attacked had already been exposed to malarial influences until his blood was more or less impoverished of its red corpuscles, and nutritive constituents, with laxity of tissues; or if he had been living in the impure air of overcrowded dwellings, or in the midst of other conditions favoring typhoid developments, until the plasticity of his blood and the tonicity of his tissues were both impaired, his case would present all the characteristic features and tendencies of an asthenic inflammation. Again we have seen patients attacked with inflammation caused by the presence in the blood of some specific virus or contagium, the presence of which so modifies the symptoms and progress of the inflammation as to differ much from the ordinary sthenic or asthenic varieties. While it is true, therefore, that it is desirable to allay the irritation and lessen the vascular fulness in the first stage of all acute inflammations, whether sthenic, asthenic, or specific, yet the means for accomplishing these results most efficiently will differ much in the several varieties. Morbid susceptibility or irritation may be allayed by anodynes, anæsthetics, and sedatives; and vascular fulness may be diminished by lessening the quantity of blood in the vessels as by venesection, by increasing the contraction of the vessels themselves, through the influence of the vaso-motor nerves, and by lessening the action of the heart in forcing the blood into the vessels.

A careful examination of the actual clinical results obtained in the management of acute inflammatory affections during the last half century shows that in the first stage of the active sthenic grade of pneumonia one prompt and decisive venesection, followed by such cardiac sedatives as will lessen the force and frequency of the heart's action, is not only the most efficient mode of relieving the vascular fulness, and thereby limiting the amount of subsequent exudation, but it has been followed by the highest ratio of recoveries. In the same stage of those cases occurring in patients whose blood is already diminished in plasticity, and vessels more or less relaxed from malarious influences, from two to three decigrammes (gr. iij to v) of sulphate of quinia, given every two or three hours, alternately, with some mild cardiac sedative and alterant, will often as effectually check the vascular fulness as will the bleeding in the purely sthenic cases. In those cases, however, occurring in patients who are living in the midst of sanitary conditions strongly predisposing to attacks of typhoid or typhus fevers, the adjustment of remedies to meet the indications in the first stage is more difficult. In such patients direct depletion by bleeding is seldom borne without positive injury, and quinia frequently fails to produce the effect desired. When called to this class within the first twenty-four hours after the initial chill, I have usually ordered six powders, each containing sulphate of quinia 0.200 gramme (gr. iij); calomel, 0.066 gramme (gr. j); sanguinariae, pulverized, 0.033 gramme (gr. ss); and glycyrrhiza, pulverized, 0.066 gramme (gr. i); one to be given every four hours, and four cubic centimetres (fl. ʒj) of the following mixture between:

R. Liquor ammoniæ acetatis,	60 c.c.,	ʒij.
Tinct. opii et camph.	60 c.c.,	ʒij.
Tinct. aconiti rad.	4 c.c.,	ʒj.—M.

At the same time cover the whole affected side of the chest with a linseed-meal poultice; and if the skin is hot and dry, have all the surface not covered by the poultice frequently sponged with milk-warm water. As soon as the six powders have been taken, if the bowels have not moved spontaneously, they should be induced to move by an enema or a mild laxative. That the distinctions I have made in regard to the modifications or grades of pneumonia, and the variations which they require in the choice of remedies for fulfilling the indications presented in the first stage of the disease, are neither theoretical nor fanciful, but such as actually confront us at the bedside of our patients, I have had abundance of evidence in my own clinical experience.

From 1837 to 1847, I was practising in a hilly, rugged region, free from malaria, and supplied with pure air and good water, in the interior of New York, near the northern line of Pennsylvania, where the winters were cold, and during which attacks of pneumonia, pleurisy, bronchitis, and rheumatism were frequent, and uniformly of the sthenic type. In every case, when called during the first stage of the disease, I bled freely once and sometimes twice, and gave internally sedative doses of *tartar emetic*, alternately, with alterative and anodyne doses of calomel and Dover's powder.

The relief to the patient was always well marked, and sometimes so decisive as to render the amount of exudation in the second stage unimportant, and to enable the patients to be up and dressed, with all the indications of complete convalescence on the fourth and fifth days. In the spring of 1847, I moved to the city of New York, where, during a residence of little more than two years, I saw but few cases of pneumonia, and those among the poor surrounded by bad sanitary conditions.

In the autumn of 1849, I came to this city, then without sewers, and only a small part of it supplied with

lake water. Yet the tide of immigration was such that every boarding-house was over-crowded, and we had an abundance of the *idio-miasms* added to the malaria naturally prevalent in the locality. Here, during the succeeding ten years, I had a rare opportunity for studying the modifying effects of malaria and the causes favoring typhoid fever on all the acute inflammations, both in their separate action and in all degrees of their commingling. I saw, during the latter part of winter and early spring of each year, many cases of pneumonia very promptly relieved by the free use of quinia in the first stage; while in other cases more strongly influenced by the causes of typhoid diseases, the quinia either produced but little apparent effect, or else added much to the dulness of hearing and stupidity of the mental faculties generally; and occasionally a case confronted me with all the characteristics of the sthenic type as strongly as I had seen at an earlier period in the interior of New York, and in which a prompt and full venesection had the same beneficial effects. In a few of the more severe attacks of pneumonia under strongly malarious influences, I have seen much benefit from one very early and free bleeding, followed by quinia in efficient doses. But I have never seen benefit from blood-letting in cases occurring in the midst of such sanitary conditions as decidedly favor the development of typhoid or typhus fevers. In the winter of 1850-'51, in a well-marked case of this variety, I opened a vein in the arm for the express purpose of ascertaining experimentally what the effect would be. Decided indications of syncope came before I had taken an ordinary *teacupful* of blood, and I was obliged to tie up the arm and administer carbonate of ammonia and camphor as restoratives. I have called your attention to the treatment of the first or congestive stage of pneumonia thus fully, because it is only in this stage that measures designed for directly lessening the vascular fulness, and consequently rendering the subsequent stages milder and shorter, can be used with benefit to the patient. When exudation has already taken place, and the second stage of the disease is fairly developed, further depletive and sedative measures are useless and generally injurious. In this stage, the continuance of poultices over the chest, and in some cases the addition of a blister, and the administration of alterant, anodyne, and expectorant mixtures, and mild nourishment, will constitute the treatment best calculated to promote resolution and prevent either purulent or caseous degeneration. The following is one of the best alterant, anodyne, and expectorant combinations that I have used:

R. Ammoniæ muriat.	12.00 grammes,	ʒij.
Ant. et pot. tart.	0.13 "	gr. ij.
Morph. sulph.	0.20 "	gr. ij.
Syrupi glycyrrhizæ,	130.00 c. c.,	ʒiv.—M.

Four cubic centimetres (fl. ʒj) may be given to an adult every three or four hours, mixed with a table-spoonful of water. If the urine is scanty, a mixture of two parts of liquor ammoniæ acetatis, two of spirits of nitrous ether, and one part of tincture of digitalis, may be given in doses suited to the age of the patient, half way between the doses of the other mixture. In most cases from two to three decigrammes (grs. iii to v) of quinia may be given with benefit, three times a day, until convalescence is established. There are some other items in the management of pneumonia to which I would like to allude, but the clinic hour is passed, and I must close for the present.

ORIGINAL ARTICLES.

THE TONSILS AND PHARYNGEAL IRRITATION.

BY HARRISON ALLEN, M.D.,

PROFESSOR OF PHYSIOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

THE tonsils have been for the most part studied only when they have obstructed the pharynx; for the relations between such obstructions and the acts of breathing, swallowing, and speech are so manifest, that those who run may read. These curious bodies, however, when not of sufficient size to create obstruction, have been ignored as possible causes of other phases of pharyngeal distress.

The following cases are presented as instances of pronounced trouble, arising from slight, but persistent, irritation from the tonsils and the allied bodies situated at the side of the pharynx.

CASE I.—Z., aged twenty-eight, contracted a cold eight years before, which had persisted up to the date of coming under treatment.

The symptoms at this time were: dropping of mucus, fullness in the back part of the throat, and pains in the chest. No symptoms were referred to the nose. Excessive quantities of mucus were constantly raised by gentle regurgitant acts from the laryngo-pharynx. It appeared to well up as from an inexhaustible receiver. Examination was made difficult, for when the mouth was kept open for a short time the fluid trickled into the larynx, producing a spasmodic cough which was very distressing.

The patient, a student of pharmacy, had the appearance of being overworked and underfed. The mucous membranes were pale, the edges of the folds and of the uvula were grayish and translucent. No infiltration anywhere existed. The lips were covered with whitish patches resembling the mucous patches of syphilis, but the existence of this taint was in no way confirmed by other signs, or by the history of the case. The patient did not use tobacco in any form.

This case was treated after approved methods; by spraying, local applications of astringents, by constitutional remedies, etc., for a month without benefit. At the end of this time a renewed careful examination revealed a small nodule lying on the left side of the pharynx below the tonsil. It was suspected as the source of irritation, and after three applications of the electro-cautery was destroyed. The symptoms were at once improved, and have now almost ceased.

CASE II.—Y., aged thirty-five, a bookkeeper, of spare habit, came under observation complaining of constant hacking and irritation of the throat, although no mucus was expelled by his efforts. The symptoms were of an aggravated, almost choreic, character. The throat was relaxed and flabby.

The uvula had been amputated by a practitioner in an abortive attempt to relieve the distressing condition. The case was under observation for a fortnight without relief, when the condition of the tonsils was suspected as a possible factor in the causation of the symptoms. These had not been noted in the previous casual examination of the oro-pharynx, for the reason that they were concealed within excep-

tionally deep tonsillar spaces. The relaxed palato-glossal and palato-pharyngeal folds had reduced these to inconspicuous chinks. Careful examination revealed on each side of the throat pea-like masses of indurated tonsil, pressing backward against the palato-pharyngeal folds. These bodies were destroyed by successive applications of the electro-cautery, and, after the subsidence of the inflammation caused by its use, the symptoms disappeared. Six months have elapsed since the treatment and the patient remains comfortable.

CASE III.—Miss O., aged twenty-four, suffered from irritation of the throat, referred to the right side. She complained of a sense of fullness, and her breath was exceedingly fetid. She reported for the last-named condition, which rendered her morbidly sensitive and almost excluded her from society. The disease had lasted three years, having been treated without permanent benefit by her family attendant, and by a prominent specialist in a neighboring city.

Careful examination revealed the palato-glossal fold stretched out as an operculum over the left tonsillar space and almost touching the palato-pharyngeal fold. When this opercular fold was drawn forward a number of tonsillar pellets were seen lying against the face of a flattened nodular tonsil, and the true nature of the case was at once evident. A diseased tonsil threw off the solid fetid pellets which are characteristic of this body, but owing to the peculiar disposition of the palato-glossal fold, they were retained in contact with the face of the gland instead of being ejected.

The opercular fold was removed with a pair of blunt curved scissors, the parts washed with a weak carbolic acid lotion, and the surface of the tonsil cauterized with the electro-cautery. The trouble at once disappeared and has not since returned.

CASE IV.—Miss X., aged thirty, referred to me by my friend Dr. Charles H. McCall, had been subject for years to neurasthenia, which had resisted the rest treatment and all other improved methods, until relief was at last obtained through the removal of the ovaries by Battey's operation. Among other symptoms accompanying the neurasthenia was a disposition to laryngeal catarrh, which would follow slight and apparently insufficient causes, such as a little fatigue, a slight change of temperature, or an attack of indigestion. There was also a sense of fullness referred to the region of the pomum Adami and the hyoid bone. She was excessively self-watchful and neurotic. Battey's operation had relieved the neurasthenia, but the pharyngeal symptoms persisted.

The throat was capacious, the palatal folds without infiltration, the tonsils were small, and did not press upon the palato-pharyngeal folds. The palato-glossal folds were not tense nor stretched over the tonsils. The parts were excessively irritable, and required careful training before the lower part of the pharynx could be exposed. The examination of this region revealed on the right side a red cock's-comb-like body, lying in the pharyngo-epiglottidean fold and projecting against the edge of a large epiglottis. The larynx was normal. The symptoms were entirely removed by applications to

the swelling just named. The electro-cautery was used upon small surfaces at a time, twice weekly for a month, great pains being taken to avoid inflammatory oedema of the glosso-epiglottidean space.

CASE V.—Mr. W., aged twenty-four, of fair complexion and with reddish hair, had contracted scarlet fever in childhood, and since that time had suffered from repeated attacks of tonsillitis. He contracted nasal catarrh in 1877, which was characterized by a semi-purulent discharge. This was shortly followed by symptoms of pharyngeal irritation, such as constant hacking, etc. There was a copious flow of perfectly normal mucus from the nasal passages, causing distressing efforts to dislodge it. Examination of the nose showed a slight deflection of the septum to the left, reddened membranes, and a thin, amber-colored crust overlying the under surface of the right middle turbinated bone. On the right side of the septum, at the premaxillary portion, was a small superficial ulcer which was occasionally the seat of moderate bleeding. Examination of the oro-pharynx showed intense hyperæmia, but no inflammatory thickening. The palato-pharyngeal folds were oedematous, and the velum elevated. The palato-glossal folds were relaxed and dusky, while the tonsillar spaces were concealed by two broad opercular bands. No view of the naso-pharynx was obtainable. The patient had been under medical care, without benefit, ever since the beginning of the pharyngeal distress, nearly four years before.

Under a treatment which consisted of spraying the pharynx, the use of gargles, and the administration of tonics, the nasal symptoms almost entirely ceased, and gave no annoyance. At subsequent visits, the naso-pharynx was successfully explored, but it exhibited no abnormal conditions whatever. Under the impression that a local cause of irritation was, however, somewhere present, the throat was again thoroughly explored. The tonsils were found to be mammillated and concealed by the palato-glossal and palato-pharyngeal folds. They were retroverted, so that their rugose, reddened surfaces were in contact with the swollen palato-pharyngeal folds, and it was accordingly suspected that here was the cause of the distress. Four free applications of the electro-cautery, at intervals of three days, completely removed the symptoms, and the hyperæmic appearance of the pharynx totally disappeared. The treatment was interrupted by an attack of acute rheumatism, but the patient reported again, after an absence of six weeks, so completely relieved that no further attention was necessary. It is of interest to note in this case that not only did the hacking and the flow of mucus cease, but the velum no longer remained elevated, nor did the middle turbinated bone throw out a plastic discharge. The tonsil, in a word, had not only kept the pharyngeal surfaces in a state of irritation, but had given rise to other symptoms which are usually traced to a different source.

The conclusion to be drawn from the above cases is simple enough. Pharyngeal irritation is often associated with a concealed tonsil or an infra-tonsillar gland, fretting the parts in their immediate neighborhood.

NOTE.—It is mentioned in the paper above that the pharyngeal irritation was associated with nasal disease due to obstructions. I have, in another place (*Amer. Journ. of Med. Sci.*, Jan. 1879), pointed out the causes frequently found in such cases, and the necessity of removing the projections from the nasal septum before recoveries can be established. It is now my custom, when the obstruction is in the premaxillary portion of the nose, in addition to filing or drilling away the osseous spurs or malformed sutures, to reset the triangular cartilage by detaching the inferior border from the triangular notch, to push the cartilage over to the larger side, and then drill or file away the projecting maxillary spur. This procedure I have now practised in eight cases, with very gratifying results.

OPIUM POISONING, FOLLOWED BY PNEUMONIA.

ARE STRIPPING, FLAGELLATION, VIOLENT EXERCISE, AND DOUCHING NECESSARY?

BY A. B. ISHAM, M.D.,
OF CINCINNATI, OHIO.

CASE I.—Mrs. B., æt. forty-four, was under treatment by Dr. S. C. Ayres, as a specialist, for catarrhal ophthalmia. The Doctor visited her the morning of the 3d of March, 1882, when he found her unconscious; she could not be aroused, the pupils were contracted to a pin's point and immobile, the respirations about two per minute, the pulse very rapid and feeble; the skin cold, clammy, and livid, and the attendants dragging her around, and slapping her vigorously with the palms of the hands. He learned that the previous evening she had suffered some neuralgic pains in the globe of the right eye, for the relief of which she had called in a homœopathic physician, who, within a period of ten minutes, administered two hypodermic injections of morphia, the amount of which it was stated he did not know, since he had carried the solution for six months, and had forgotten its strength. Dr. Ayres at once injected subcutaneously $\frac{1}{4}$ of a grain of sulphate of atropia, and declined further connection with the case, unless the medical attendant who had caused the trouble was discharged, and some one else called in with whom he could counsel. As the family could not at once decide to accede to his proposals, the Doctor took his departure, but yielded so far to entreaties as to promise to call in the evening and look at the patient. Accordingly at the evening visit the condition appeared yet of such gravity that his demands were yielded to, and, at his instance, I was called in to take charge of the case. On arrival, I found the patient clothed only in a thin wrapper and undergarment, which were both thoroughly saturated by the spilling of coffee, tea, brandy, milk, and water, in the attempts which had been made from time to time to pour these liquids down her throat. For twenty-four hours she had been incessantly moved about in a cold atmosphere, in rooms with windows open, and been slapped with the hands from head to foot. The atropia injection of Dr. Ayres was really about the only potent measure toward antagonizing the action of morphia which had been employed.

The pulse was 110 and weak, respirations 8 to the minute and sighing; the skin was cold, clammy, and livid; the pupils were contracted to a pin's head, yet they nevertheless exhibited the faintest sign of response to light. She was capable of being aroused, and could recognize persons. The symptoms of exhaustion seeming the most marked, it was directed that the clothing should be changed, and the subject placed in bed; stimulants were administered, and mustard plasters applied to the abdomen, legs, and feet.

March 4, 7 A.M.—Patient fully conscious, respiration 23, pulse 110, temperature 102° . Coughing. Has bluish-black bruises all over the surface, everywhere; she is very sensitive to the touch, and complains greatly of soreness and exhaustion. 9 P.M., cough very distressing, temperature $102\frac{3}{4}^{\circ}$, pulse 122, dulness and crepitation at lower portion of right lung, front and back.

5th.—Rusty colored, thick, tenacious sputum; expectoration scanty and difficult; subcrepitant and fine mucous râles; temperature 104° , pulse 125. The pneumonia thus inaugurated pursued its course, and the patient was discharged convalescent March 23.

For the next case I am indebted to the courtesy of Dr. Wm. Carson, to whose service at the Cincinnati Hospital it pertained. The notes were supplied by Mr. Walter Christopher, under-graduate resident physician.

CASE II.—Victor Crook, French; æt. 40; barber; poorly developed and nourished; residence Urbana, O. Came to the hospital in the patrol wagon about 9 P.M. of March 30. Pulse rapid and full, respiration ceased, temperature about normal, face slightly cyanosed, pupils contracted to size of a pin-head, muscles completely relaxed, and unconscious. Administered at once $\frac{1}{16}$ grain of atropia hypodermically, and commenced artificial respiration. Within a half hour another $\frac{1}{16}$ grain of atropia was injected. In addition to carrying on artificial respiration by Silvester's method, flagellation of the chest with wet towels was employed to stimulate the act. About 10 o'clock P.M., the muscles of both upper and lower extremities became rigid, and there was also tonic contraction of the muscles of the back of the neck, and slight trismus, but no risus sardonicus. In about one hour these tonic contractions disappeared. During the greater part of the night no voluntary attempt at respiration was made, or else made at long intervals, and the act was almost entirely carried on artificially. At 4 A.M. of March 31, respiration could be excited by merely striking the chest, at which time the motion of raising the arms to produce inspiration was omitted, but expelling the air by compressing the chest was not discontinued. In a short time, however, the patient ceased again to make natural efforts at respiration, and the complete Silvester's method was again brought into use. At 6.30 A.M. the patient was able to carry on respiration unaided. About 7 A.M. he was taken to the ward, when the motion of transferring him from the stretcher to the bed again stopped respiration, which was, however, easily started again by the methods above mentioned. During most of the

night the pulse was good, except a couple of intervals of about an hour each, when it became imperceptible at the wrist. In addition to several injections of $\frac{1}{16}$ of a grain of atropia, he received several hypodermic injections of brandy and whiskey. At 2 P.M. he could be roused by sharp questioning, but his answers were incoherent and unintelligible. He had again in the morning shown tetanoid symptoms, but no history of his having taken any strychnia could be obtained. The form of the poison used was morphia, but how much could not be ascertained. Toward evening, there was considerable elevation of temperature. He became fully awake, and could talk intelligently, but his movements were uncertain and jerky.

April 1, 5 P.M.—Resting easily. 10 P.M., very restless; high, weak pulse; temperature 103° .

2d, A.M.—Better; temperature 100° . P.M., temperature 102° ; coughing.

3d, A.M.—Dr. Carson announced pneumonia. P.M., temperature 102.5° ; pulse 124; respiration 55; crepitant râle in the right infra-scapular region; dulness over the right and left infra-scapular and scapular regions; rusty sputum. 7.10 P.M., died.

It has escaped mention in the above report that the patient was stripped to the waist in the accident ward for about nine hours, or during the time artificial respiration was practised, and besides his body was drenched with cold water by the flagellation with wet towels.

A considerable search through professional journalistic literature has not discovered other cases of pneumonia following opium poisoning. Dr. H. C. Wood, whom nothing is likely to have escaped, states in his work on *Materia Medica, Therapeutics, and Toxicology*, that opium poisoning usually has no sequelæ, and only gives a case of amaurosis taken from Schmidt's *Jahrbücher*. But it must not be overlooked that after opium ingestion, where death results, it supervenes rapidly, and that time enough is not given for pulmonary congestion to pass over into inflammation, or, if it does, it is likely not noticed, but considered part of the toxic action of the drug. Probably, too, this complication may not have been broached, from the fact that only a relatively small number of all the cases of opium poisoning which happen are published, and of these by far the greater proportion are those ending in recovery. In the reported cases the main point at issue is *treatment*, successful or unsuccessful. Consequently the attention has been directed solely to cause and antagonism to cause, and between these two nothing regarded as extraneous has been permitted to intervene.

What share a portion of the treatment employed had to do with the production of pneumonia in the two cases reported, may be settled to suit individual opinion. It is hardly possible that in both cases exposure and exhaustion were not without injurious influence. How many have been laid to the last long sleep by similar methods of procedure, the records do not show. They do show, however, that violent and excessive exercise, exposure, flagellation, and douching are unnecessary; that cases do as well, or better, where such expedients are not resorted to. And by thus showing that they are useless, they be-

come disclosed as cruel and barbarous, and therefore detrimental.

The above statements are supported by numerous published cases of opium poisoning scattered throughout home and foreign medical journals, which were successfully treated simply by atropia or belladonna, with rest and stimulants, including, of course, free emesis where the drug was taken *per orem*. Such means have proved ample for the recovery of apparently hopeless cases, in which there was no question as to the introduction of a fatal quantity of the poison, and in which the most alarming toxic effects were manifested. Dr. Oliver, of Philadelphia, in the *American Journal of the Medical Sciences*, 1876, has tabulated 256 cases of opium poisoning, of which one-half were subjected to the "belladonna treatment," and the other half to other methods. In the former the average percentage of recoveries was 96, and this is the series in which movement and exposure had the least place; while in the latter, where they always formed part and parcel of the other methods, the average percentage of recoveries only amounted to 74. Furthermore, the experiments of Drs. Corona and J. Hughes-Bennett upon animals leave no doubt of the power of atropia alone to prevent a deadly issue after the administration of a fatal dose of opium. While the main reliance, then, must rest upon the "belladonna treatment," there are some aids which have been, and yet may be, found advantageous. Such are the administration of caffeine and theine by hypodermic injection or *per orem*, the moderate employment of artificial respiration at intervals in special emergencies, and the use of a strong faradic current to cause pain, arouse the patient, and stimulate the flagging respiratory act. This latter has the merit of fulfilling these purposes to the greatest possible extent, and of leaving behind no marks, soreness, or exhaustion.

The treatment of opium poisoning may be thus summarized: Evacuation of the stomach by emesis or the stomach-pump, when the drug has been introduced by the mouth, atropia, caffeine, theine, stimulants, rest in a recumbent posture, sufficient clothing to retain the body heat, the considerate employment of artificial respiration where respiration is suspended, and electricity. All important indications are thereby met. By clearing out the stomach any unabsorbed portion of the poisonous agent is removed. Atropia, caffeine, and theine are respiratory excitants, and they favor the elimination of carbonic acid, with which the blood is surcharged in opium narcosis. Stimulants, rest, and warmth prevent the dissipation of the body strength and heat, and thus preserve to the tissues the greatest resistance-power to the poison. By artificial respiration, when the act is suspended, vital processes may be continued until force enough is gathered to make them self-sustaining. Finally, through electricity, impressions are made upon torpid nervous centres which call forth conscious and reflex respiratory and other efforts of value in overcoming the grave condition. Experience has fully demonstrated that this treatment combines all elements which are worthy to be relied on for rescue. In attempting

to do more, is there not a culpable waste of more potent resources?

In closing, it seems fitting to give some of the conclusions of Dr. James Johnston, based upon a personal treatment of three hundred cases of opium poisoning, from the *Medical Times and Gazette*, of February 15, 1873. When the nervous centres are profoundly impressed, it is not only useless but mischievous to drag the individual about, as it only increases the exhaustion, which is one of the greatest dangers in cases of opium poisoning. The treatment for such cases is to place the patient in a horizontal position, inject atropia subcutaneously, if necessary assist it with artificial respiration, and, in cases of exhaustion, strengthen the circulation by applying warmth and counter-irritation to the limbs, and by the administration of stimulants, such as coffee, ammonia, brandy, etc. When the system is fairly under the influence of atropia, with respiration tranquil, however slow it may be, it is undesirable to interfere by artificial respiration, as it only embarrasses the breathing, and interferes with the tranquil sleep which usually follows the exhibition of atropia.

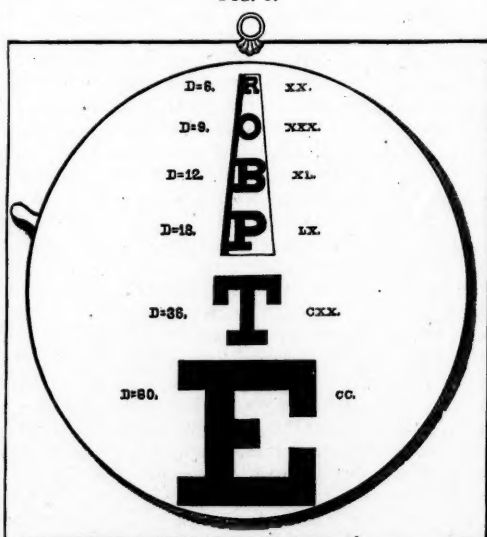
A TEST-TYPE DISK.

BY WILLIAM THOMSON, M.D.,

PROFESSOR OF OPHTHALMOLOGY IN THE JEFFERSON MEDICAL COLLEGE.

In testing for the acuteness of vision of the employes of the Pennsylvania Railroad, it was deemed requisite to guard against any deception or bad faith, or at least to take precautions that the Snellen test-types should not be so accessible as to enable the men to examine them and learn them by heart. I was led, several months ago, to arrange the usual

FIG. 1.



Upper disk.

letters in such a manner as to prevent any but one letter of a series from being visible at one time. This was done by using two disks of card-board,

about 12" in diameter, superimposed, and fastened at their centres to a square of card-board, 14" in each direction, which could be suspended upon the wall.

Upon the front disk (Fig. 1), near its lower border, was placed the letter D=60. Over the centre was placed D=36, and above this an opening was made by cutting out a V-shaped piece, to permit the letters on the second or lower disk to be seen. On this disk, above its centre, were placed, in concentric lines, all of the letters—D=18, 12, 9, and 6, and in addition some figures of the same sizes, so arranged that, by the rotation of the second disk (Fig. 2), they could be brought into view at will through the opening in disk one.

FIG. 2.



Under disk.

This arrangement has been perfected, and will be furnished by Queen & Co., and I think it is worthy of description, since it will answer the purpose for which it was designed, and it also forms a compact, convenient, and useful form of the standard test-letters for office use, inasmuch as it prevents patients from learning all the letters of any given size with one eye before the other has been examined. The metric system has been selected, but the equivalent in English feet has been also placed opposite each series of dioptrics.

MEDICAL PROGRESS.

RESECTION OF THE PYLORUS.—LAUENSTEIN (*Centralb. f. Chir.*, No. 9, 1882) attempted the resection of the pylorus on the third of January, of this year, in a woman aged thirty-four years, with symptoms of cancer of the stomach, confirmed by the detection in the epigastric region of a tumor the size of the fist. In the operation an unexpected difficulty was met with; the stomach was closely adherent to the omentum, both at the greater curvature and by its posterior wall, necessitating the application of a very large number of ligatures, and the loss of a great deal of time, the operation lasting five hours. No unfavorable symptoms developed until five days after the operation, when

peritonitis set in and rapidly proved fatal. The autopsy showed that the transverse colon was gangrenous at the point where its attachments to the stomach had been destroyed.

In a case reported by LEDDERHOSE (*Deutsche Zeit. f. Chir.*, xvi., 1882), the stomach was bound down to the pancreas, which was only recognized after having been cut; it was then attempted to free it by dissection, so causing considerable loss of blood and time, and requiring the use of the thermo-cautery. The operation lasted five hours, and the patient died during the course of the day from probable heart paralysis.

NYCOLAISEN (*Berlin. klin. Woch.*, 3, 1882) was equally unfortunate in the extirpation of the pylorus attempted on a woman presenting symptoms of cancer of the stomach with a perceptible tumor at the level of the eighth rib on the right side. Collapse occurred as the patient was recovering from the chloroform, and in spite of the administration of stimuli, she died in the course of the night.—*Gazette Méd. de Paris*, May 6, 1882.

PARESIS OF THE VOCAL CORDS.—**DR. WHITFIELD WARD** gives the following as a summary of his views on this subject:

1. That the arytenoideus muscle is the principal agent in the production of the affection styled paralysis of adduction.

2. That elliptical paralysis is caused by a paresis of the crico-arytenoidei laterales, through the inability of the latter bodies to revolve the arytenoid cartilages inward when approximated.

3. That the thyro-arytenoidei are the only relaxors of the vocal cords, and the type of paralysis produced by these muscular bodies is characterized by a perpetual tension of the vocal bands when adducted.

4. That the crico-thyroids are the only vocal tensors, and a paralysis of these latter muscles is manifested by the cords being permanently relaxed when approximated.—*Arch. of Laryngology*, April, 1882.

USE OF THE CARBOLIC SPRAY AS A PREVENTIVE AND CURATIVE OF SUPPURATIVE KERATO-IRITIS IN THE EXTRACTION OF CATARACT.—DR. GALEZOWSKI formulates the following propositions as expressing his results reached in a careful study of this subject:

1. The carbolic spray should form one of the indispensable conditions for ocular operations, and particularly for the extraction of cataract. The eye should be exposed to the spray during the entire operation, and after the operation is completed the eyelids should be widely opened and the spray directed immediately on the wound.

2. Each renewal of the dressing should be made under the spray.

3. Whenever, in the first three or four days, the least supuration is detected at the border of the corneal wound, or an iritis with oedema of the eyelids, the spray should be used every half or quarter hour, according to the severity of the case.—*Gaz. Hebdom.*, June 2, 1882.

THE PRESENCE OF PTOMAINES IN THE INFERIOR ANIMALS.—M. SCHLAGDENHAUFFEN (*Journ. de Pharm. d'Alsace-Lorraine*, March, 1882) reviews the history of the important discovery of this class of organic poisons by the Italian chemists Moriggia and Battistini, in 1875, which were also observed at about the same time by Selmi, Casali, and Vella, and who called attention to their great importance in toxicology. More recently Brouardel and Boutmy, as also A. Gautier, have occupied themselves with the study of the formation of these bodies. According to the former, the ptomaines are the result of the putrid transformation of albuminous

bodies. They are most readily formed when the putrefaction takes place with exclusion of the air, and result from the union of certain hydrocarbons with the nitrogen proceeding from the tissues or from the animal liquids, while the oxygen of these materials and their carbon are dissipated in the form of carbonic acid gas. They may also be formed during life.

A. Gautier, whom Selmi was pleased to recognize as the first chemist to affirm the existence of ptomaines in putrefying matters, has expressed the opinion that they result from a division of the albuminoid matters. He has searched for them among the products of secretion of certain animals which are provided with special glands, and has confirmed their presence in the venom of reptiles.

Pursuing the thought of the physiological formation of these bodies, the question arose whether the salivary glands of the superior animals would not produce toxic substances analogous to the venom of serpents, and has indeed found in normal human saliva a very toxic substance, particularly in its action upon birds, in which it produces intense stupefaction. It consists principally of a venomous alkaloid, forming a soluble and uncrystallizable chloro-platinate and chloro-aurate, of the nature of the cadaveric alkaloids.

Based upon the interesting results of Gautier, the author has sought to disclose the presence of ptomaines in the inferior animals, selecting the comestible oyster and the common mussel as the subjects for experiment.

The animal, after having been detached from the shell, was deprived of the larger part of the tissue, in order to retain simply the central organ, the stomach and liver, upon which the experiments were made. The material was rubbed in a mortar with sand, which latter had been previously washed with acid and strongly ignited, and finally the organic material, after complete desiccation in a bath of salt water, introduced into an apparatus for continual displacement, and treated with hot ether. The ethereal liquid, evaporated to the consistence of an extract, contained a notable quantity of fatty matter mixed with chlorophyll, the presence of which was easily disclosed, either by the aid of the spectroscope or by means of concentrated hydrochloric acid. The ethereal extract was then extracted with water, without the addition of an acid.

The aqueous solution, evaporated to a convenient quantity, presented all the characters of the cadaveric alkaloids. It gave a yellowish-white precipitate with potassio-mercuric iodide and potassio-cadmio iodide. Iodine in potassium iodide, and the double iodide of bismuth and potassium, produced brown precipitates. Picric acid, phospho-molybdate of sodium, and tannin produced, likewise, abundant precipitates. Potassium ferricyanide, in contact with ferric chloride, gave rise to the formation of Prussian-blue. Its hypodermic injection produced in the frog a stupefying effect, but without causing death.

These characters agree with those of the ptomaines; and the author concludes from the above reactions that shell-fish contain bodies analogous to the vegetable alkaloids.

As to their origin, the author considers it difficult from the preliminary experiments to attribute their formation to a division of the albuminoid matters of the tissue, for nothing peremptorily demonstrates it; one would be able to refer them perhaps to a transformation of the alimentary bodies.

It would not be without interest to examine whether the production of ptomaines in animals is more abundant under certain physiological conditions than in others, or whether the toxic action of these bodies is more pronounced in summer than in winter. It is in order to elucidate this question that the author proposes

to return again to the subject, after having investigated the reason, which is still the subject of controversy, why the consumption of oysters and mussels at certain seasons of the year is attended with danger.—*Amer. Journal of Pharm.*, May, 1882.

BLOODLESS OPERATIONS.—DR. JULIUS WOLFF, of Berlin, in a recent communication on the arrest of hemorrhage during and after surgical operations (Langenbeck's *Archiv*, Band xxvii., Heft 2), points out that most of the anticipated dangers of Esmarch's method do not exist. No instances have yet been recorded of such results from its application as plethora of internal organs, cerebral apoplexy, local inflammation, thrombosis, or gangrene. When persistent paralysis is met with as a result of constriction of a large nerve, it is usually found that the elastic band or ligature is composed of unsuitable material, or that it has been improperly applied. The danger, in cases of suppuration or sloughing, of putrid fluid, or unhealthy and softened tissue being driven into the circulatory system or the healthy structures, may be prevented by dispensing with the use of the elastic ligature, and by elevating the limb for a few minutes before applying the ligature. The most serious disadvantage attending Esmarch's method of constriction is the profuse parenchymatous bleeding, through temporary paralysis of the walls of the small vessels, which follows the removal of the constricting agent. Dr. Wolff describes the different attempts that have been made to prevent or guard against this result. In 1878, he proved that, during such operations on a limb as the removal of a sequestrum or the excision of a tumor, much blood would be saved by elevating this limb during the operation, and by its previous cooling through contact with moderately cooled air or water. He found that, by elevating the closed hand for a short time, he was able to lower its temperature by several degrees; and he stated that recent wounds, which, during elevation of the limb, remained almost quite dry, became at once flooded with blood after the limb had been laid in the horizontal position. After exposure of the upper extremity to air at a temperature of 42° Fahr., or water at 48° Fahr., such contraction of the small vessels results, it is stated, that, even when the arm is allowed to hang down, the thermometer grasped in the hand will not rise higher than 70° Fahr., and the hand and forearm will remain pale and cold. In operations on limbs, including major amputations, Esmarch, after tying all large and visible arteries, applies a firm and constricting dressing, and then removes the ligature. König, after the large vessels have been secured, removes the ligature, elevates the limb, and then looks for the bleeding vessels before finally covering the wound or stump. Dr. Wolff advocates the plan of covering the extremity of the stump by firmly bandaged antiseptic dressings, after removal of the constricting ligature, and before the application of the sutures, and of retaining these dressings, with the limb elevated, for a period of fifteen or twenty minutes, and until the stage of vaso-motor paralysis has ceased. The end of the stump is then again exposed, and, after deligation of any vessels that may still bleed, the wound is drained, closed by sutures, and then dressed. Three cases of amputation in the thigh are recorded in which this method was practised with success. The author recognizes the objection on the score of too much delay in the operation, and of the necessity of keeping the patient under the influence of the anæsthetic for at least a quarter of an hour after the removal of a limb. It is pointed out, however, that very often after the removal of the constricting band in amputation, much time is taken up in looking for and securing a number of small but freely bleeding vessels.—*London Med. Record*, May 15, 1882.

CLASSIFICATION OF THE MOTOR AFFECTIONS OF THE LARYNX.—DR. G. M. LEFFERTS adopts the following classification of motor affections of the larynx:

1. Motor paralyses of the larynx, the result of complete, usually acute, morbid implications of the nerve centres, or of the main nerve trunks, the lesion being either unilateral or bilateral, and the vocal cord or cords assuming the "cadaveric" position.

2. Motor paralyses of the larynx, the result of incomplete, usually slowly progressive, lesion of either the nerve centres, or, more commonly, of the nerve trunks in their course; certain nuclei of the former, or certain fibrils of the latter, alone being implicated, certain muscles alone are paralyzed; the abductor muscles of the glottis, possessing a peculiar proclivity in this respect, and practically being the only ones thus affected, the lesion may be unilateral or bilateral.

3. Motor paralyses of individual muscles of the larynx, the result of implication of certain peripheral nerve twigs, by local or intra-laryngeal lesions.

4. Motor affections of single or groups of laryngeal muscles, the result of simple myopathic change in said muscles of a degenerative character.

5. Motor paralyses, functional in their nature, the adductor muscles being the ones commonly affected, the abductors very rarely.—*Arch. of Laryngology*, April, 1882.

DEAFNESS COMING ON DURING AN ATTACK OF MUMPS.—Two cases, in which deafness suddenly supervened during the course of an attack of mumps, are recorded by DR. A. H. BUCK in the *Zeitschr. f. Ohrenheilk.*, xi. 26. In the first case the patient (a girl) was seized with very acute pain in the ear on the third day of the attack, and next day she was deaf. In the second case, the patient (a man) suffering from the same affection became deaf, but suffered no pain in the ear. In both cases both parotid regions were affected; nevertheless, in the first case the deafness was limited to one side. The author thinks that in both instances the deafness was due to some affection of the labyrinth.

Moos records (*Ibidem*, p. 51) the case of a boy of 13, who, on the fifth day of an attack of bilateral parotitis, became deaf. On the sixth and seventh days vomiting occurred; on rising from bed on the eighth day the patient's gait was staggering, but this symptom gradually subsided. There was no loss of consciousness. Tuning-forks c and c' placed on the middle of the cranium, were heard in the right ear, but tuning-fork a' was inaudible; all three forks were inaudible on the left side.

That he had here to do with an affection of the labyrinth, and not with a basilar meningitis, the author thinks most probable, as consciousness was throughout undisturbed. As regards the manner in which the affection is transmitted from the parotid gland to the organ of hearing, the hypothesis that this takes place directly, though by paths which are yet unknown to us, seems most plausible. But bearing in mind the fact that both testicles are not unfrequently inflamed during an attack of mumps, it seems to the author very probable that in many cases of parotitis certain materials enter the circulation, and, in passing through organs having a very complex circulatory apparatus (e. g., the testicles or internal ear), especially when the return of blood is interfered with, are apt to be arrested, and to give rise to more or less disturbance.—*Glasgow Med. Journ.*, May, 1882.

THE SPLEEN IN SYPHILIS.—In order to be able to form a personal opinion about the liability of the spleen to be affected by the syphilitic dyscrasia, DR. BLOCH (*Hosp.-Tidende*, ix. 2 and 3, 1882) has examined the *post-mortem* records of the City Hospital of Copen-

hagen (Denmark) for fifteen years, viz., from 1866 till 1880, both included. He has collected 154 cases of *post-mortems* of children who had died with hereditary syphilis. In 96 of these the spleen was healthy. He gives the complete list, with details, of the fifty-eight cases in which the spleen was found in pathological conditions. These were hyperplasia, simple (14 cases) or combined with increased density of the tissue (31 cases), or with greater softness of the tissue than in the normal spleen (10 cases). Further, there was one case of infarctus, one of fibrinous exudation on the serous membrane, and one of thickening of the capsule and adhesion to the neighboring organs. Besides this he found in ten cases of hyperplasia fibrinous exudation on the surface of the spleen, four times thickening in different places of the capsule, and once adhesions to the contiguous parts. In eight cases there were found miliary tubercles, but always combined with tuberculosis of other internal organs.

Next Dr. Bloch examines to ascertain if the changes reported are referable to syphilis itself or whether they may as well be due to other diseases which occurred in individuals tainted with syphilis. He excludes three cases in which there were found tuberculous nodules in the spleen as part of a general tuberculosis. The great frequency with which hyperplasia is found warrants him to look upon it as a manifestation of the syphilitic dyscrasia, as described by Virchow and others.

On the other hand, the author does not think that the evidences of perisplenitis (fibrinous exudation and adhesion to neighboring organs) which were found in some cases are attributable to syphilis, since serous membranes nowhere else are found affected by syphilis.

The thickening of the capsule, he thinks with Virchow, is to be ascribed to present or past inflammation in the organ. He cannot determine from the report if the infarctus found in one case was a cicatrix as described by Virchow.

In no case of the 154 was there mentioned gummatous tumors, nor amyloid degeneration, and among 44 adults who had died in the course of syphilis during the same period, he found only three cases with amyloid degeneration, and none with gummatous tumors. These are indeed exceedingly rare in the spleen.

Dr. Bloch, in accord with Trapp, but in opposition to most other writers, thinks that the amyloid degeneration has nothing to do with syphilis, but when found in persons suffering from that disease is only due to long-continued suppuration.

Of the 44 adults suffering from syphilis, the spleen was found perfectly healthy in 14 cases; hyperplasia in 27 cases—11 times the soft variety, 16 times the hard. Together with the hyperplasia there was twice found thickening of the capsule in different places, and four times adhesions to the neighboring organs.

The hyperplasia then has been found in 61.4 per cent. of the cases of adults with acquired syphilis, while it was only found in 36.4 per cent. of the cases with hereditary syphilis. This seems to prove that it does not appear very early in the development of the disease.—*Arch. of Dermatology*, April, 1882.

IODOFORM IN DIABETES.—The last drug introduced into the treatment of diabetes mellitus is iodoform, which PROF. MOLESCHOTT, in a recent communication to the Academy of Medicine at Rome, states he has found to be very beneficial in five cases of that disease. The quantity of sugar excreted rapidly diminished in all the cases so treated. Small doses are sometimes productive of good results, but as much as forty and fifty centigrammes may be administered daily with impunity. The Professor employs cumarin—the odoriferous principle of the Tonquin bean—to overcome the un-

pleasant smell of iodoform. He prescribes—iodoform, i.o; extract of lettuce, i.o; cumarin, o.i; to be made into twenty pills with powdered gum arabic, and to proceed from one pill twice to two pills four times in the twenty-four hours.—*Lancet*, June 3, 1882.

TREATMENT OF NASAL POLYPI.—In an elaborate article on nasal polypi in the *Deutsche Med. Wochens.* for June 3, 1882, DR. MAX SCHAEFFER condemns the use of polypi forceps as a means of removal of these tumors, as they cannot be completely eradicated, and what remains will cause their reproduction. He recommends the use of the galvano-cautery snare.

THE VALUE OF THE NUMBER OF VACCINAL CICATRICES IN THE PROGNOSIS OF SMALL-POX.—In deciding this question M. LANDRIEUX stated, in a note read before the Société Médicale des Hôpitaux, on May 26, that not only the number but the character of the scars must be taken into consideration, and the scars may be divided into genuine and spurious cicatrices. In 71 cases of variola with more than three genuine scars, three died, or 4 per cent., while in 98 cases with three or less genuine scars, twelve died, or 12.24 per cent.; of 143 cases with more than three superficial scars, 29 died, or 20 per cent.; of 133 cases with three or less superficial scars, 31 died, or 23 per cent. It is therefore seen that the number and character of the scars in a case of variola will serve as an accurate guide for forming a prognosis.—*Gaz. Hebdom.*, June 2, 1882.

EHRLICH'S METHOD OF DETECTING TUBERCULAR BACILLI IN THE SPUTA.—Among the many interesting specimens of micro-organisms shown to a large assemblage at the rooms of the Royal Medical and Chirurgical Society on Tuesday evening last, the 23d inst., there were two of especial interest, showing the bacilli of tubercle. They had been prepared by Dr. Ehrlich, assistant in the Medical Clinique, Berlin, according to a new method which promises by the excellence of its results to supersede that of Koch. One was a specimen of bovine tuberculosis, the giant-cells of which were the centre of interest; and the other was a preparation of phthical sputum. It is chiefly on sputum that Dr. Ehrlich has made his observations, but his method is available also for sections. We take the following interesting practical details from the reports (*Deutsche Medicinische Wochenschrift*, May 6) of a communication made by him on May 1 to the Medical Association of Berlin (*Verein für innere Medizin*). He extracts, with a pair of needles, a small particle of the sputum, and presses it between two cover-glasses. He then separates the cover-glasses, and gets a thin layer of sputum on each. The cover-glasses are allowed to dry in the air, and, in order to fix the albumen, they are either kept for an hour at a temperature of 100° C. to 110° C., or they are passed two or three times through the flame of a Bunsen's burner. The coloring fluid is then prepared. Water is shaken up with an excess of anilin oil, and filtered through moistened filter-paper. To the clear fluid so obtained an alcoholic solution of methyl-violet or of fuchsin is added, drop by drop, until the fluid becomes opalescent. The cover-glasses, coated with the dried sputum, are then set swimming in this opalescent fluid, and in fifteen or thirty minutes they will have colored an intense blue or red, according as the violet or fuchsin had been used. Dr. Ehrlich now departs further from Koch's procedure; he does not color the substance in general with vesuvin, but he decolorizes it with strong acids, the bacilli retaining the blue color. One volume of officinal nitric acid is mixed with two parts of water, and the blue-stained preparations are put into this strong acid. In the course of a few seconds the color fades, a yellowish cloud passes

across the preparation, and leaves it white. Everything in the preparation of sputum is now decolorized, except the bacilli, which are intensely blue. But the technical difficulties of seeing them are still considerable, and it is further desirable to color the ground substance yellow in the case of a methyl-violet preparation, and blue in the case of a fuchsin preparation. In the specimen of phthical sputum prepared by Dr. Ehrlich as above, and exhibited on Tuesday last, the bacilli were very numerous, very uniform in size and form, and very distinct, the magnifying power being about 900 diameters and the illumination strong. Dr. Ehrlich has examined the sputa from twenty-six pronounced cases of phthisis, and he has found bacilli in them all, and most abundantly in acute cases. In most cases the bacilli are found in the very first specimen made, and in the very first field of the microscope. The entire process of drying and coloring may be done in less than an hour. The bacilli were not found in sputa other than phthical. A friend sent him a specimen purporting to be phthical sputum, in which Dr. Ehrlich could find no bacilli; and, on inquiry, it proved to have come from a case of empyema with perforation of the lung.—*Med. Times and Gaz.*, May 27, 1882.

PROPHYLAXIS OF OPHTHALMIA NEONATORUM.—CREDÉ (*Arch. f. Gynäkol.*, Bd. 18, H. 2.) has now treated four hundred cases in addition to two hundred previously reported, and with equal success. In consequence of the objection that the continued application of salicylic acid compresses was very probably the important part of the treatment of the earlier cases, the compresses were omitted in more than three hundred of the later ones, and the treatment thus rendered exceedingly simple. On division of the cord the infants were bathed, the lids washed off with a bit of clean rag and water only, then from a glass tube a single drop of a two per cent. solution of silver nitrate was dropped into each slightly opened eye. Nothing more was done. No one of the infants so treated became affected during the first seven days, even in slight degree, nor was there the least harm from the instillation. Children born at term showed practically no reaction, scarce reddening, never swelling. Only in a portion of the prematurely born, whose conjunctiva appears to be more easily irritated, there was after a short time an increased serous, followed by a little mucous, secretion, which, however, always disappeared in twenty-four to forty-eight hours. Credé insists that only direct treatment of the eyes themselves is a certain preventive of infection. Disinfectant cleansing of the maternal genitals before and during labor, though this also was carried out as much as possible, has been shown by experience to be insufficient of itself to prevent infection, and none of the other usual disinfectants has given the same certainty as the silver nitrate.

The mothers of the six hundred infants presented the most varying conditions; there were syphilitic, gonorrhœal, and catarrhal affections; some were clean, others very dirty, and the latter could not always be properly cleansed because entering the hospital during labor; there were easy labors, and very severe operative cases.

The above treatment, of course, prevents only such disease as is acquired during labor; this, it is generally admitted, appears at least on the fifth day. Any affection beginning later must be referred to another source. The latter cases occur but rarely, and their course is generally short and favorable, although serious cases are sometimes observed. For these a drop of the above solution should be applied at the beginning, repeated once daily, if necessary, and a small ice-bag be kept continuously on the lids.—*Boston Med. and Surg. Journ.*, June 1, 1882.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's Address, No. 1004 Walnut St., Philadelphia.

SUBSCRIPTION PRICE, INCLUDING POSTAGE,

PER ANNUM, IN ADVANCE, \$5.00.
SINGLE COPIES, 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address, HENRY C. LEA'S SON & CO.,
Nos. 706 & 708 Sansom Street,
PHILADELPHIA, PA.

SATURDAY, JULY 8, 1882.

GUITEAU—POST-MORTEM.

NOTWITHSTANDING the advances made in the means of observation, and in the interpretation, of changes discovered in the nervous centres in cases of mental disease, it still remains true that there is no necessary dependence of even extreme mental perversion on recognizable lesions. It is not safe to predict that, a mental disease being given, a certain series of morbid alterations must be found. On the other hand, the existence of very extensive disease of the cerebral structures is not incompatible with a perfectly normal state of the mental functions. It is becoming more and more evident, however, with the progress of knowledge, that the number of merely psychical derangements is lessening rapidly; indeed, there are now few psychiatrists, if any, who maintain that ancient theory of insanity which refers all cases to the domain of spiritual derangement, in which there are no discoverable lesions. The alterations in the psychic sphere are now generally referred to some change in the organic substratum.

Increasing experience, clinical observation, and experiment tend to show that minute alterations in the cortex suffice to produce extreme mental derangement, when extensive coarse lesions in the other parts of the brain have little influence on the operations of the mind. It is probable, indeed, that mere molecular changes in the gray matter of the mental sphere may much affect its functions. So much uncertainty attends the demonstration of these minute changes that there is a growing distrust regarding the genuineness of many observations. Post-mortem changes take place with such rapidity,

the preparation of sections for the microscope so modifies the structure, and so high is the skill necessary to produce good results, that structural alterations, not demonstrable by coarser means, are looked upon with some uncertainty, if not with suspicion and distrust. Hyperplasia of the delicate neuroglia, granular clouding of the cells, amyloid bodies, etc., if alone discovered, and not accompanied by other distinctive evidences of pathological change, will hardly be considered to prove, in any doubtful case, the existence of insanity.

Applying these principles to the demonstration of Guiteau's morbid cerebral anatomy, it must appear, from the report of the autopsy, that those psychiatrists who expected to demonstrate the assassin's criminal irresponsibility, by the changes in his brain, will have a rather difficult task. If they expected to find deviations from the normal type of brain structure, the evidences of chronic meningitis, dilatation of the ventricles, atheromatous degeneration of the vessels, dilatation, fatty degeneration, amyloid change, etc., of the perivascular lymph spaces, wasting, or the *état criblé* of the gray matter, and the other numerous changes in the intra-cranial organs of the chronic insane, they are, certainly, disappointed. Some deviations from a typically normal brain are referred to in the report, but they have absolutely no signification from the point of view of mental derangement. Adhesions of the dura mater, and the thickening of the membrane, without any evidence of coexistent inflammation, cannot be said, indeed, to have any pathological significance.

It may be affirmed of Guiteau's brain, that it presented as little evidence of pathological change as the brain of any one of his age dying of some other than cerebral disease. What may be disclosed on microscopic investigation, which is yet to be made, remains to be seen. Here the opportunities are great for unconscious deception, and for differences of opinion. As the naked-eye appearances are so little suggestive of disease, the minuter changes must be well fortified by the skill and experience of the microscopists undertaking the investigation, to be accepted without reserve. There must be no preconceived opinions, no previous predictions, and no prejudices of any kind, on the part of the microscopic experts to give a bias to their conclusions. They should, indeed, enter on this investigation in the spirit in which the autopsy was conducted.

The examination, the record of which we print to-day, was made with the view to ascertain the pathological conditions and the anatomical peculiarities; the interpretation of these appearances as bearing on the question of insanity, formed no part of the duty of those making the autopsy. Let the

microscopical examination be conducted to the same end—to the demonstration of the actual condition, quite irrespective of the effect the conclusions may have on the opinions and judgments of those experts who have committed themselves in advance. We may advert to this subject when the report of the microscopical appearances is published.

CHINOLINE IN THE TREATMENT OF DIPHTHERIA.

As chinoline, recently brought forward as a substitute for quinia, has proved rather disappointing, it may interest our readers to learn that it has been employed in diphtheria with a considerable measure of success. In a series of papers now publishing in the *Berliner klinische Wochenschrift*, Dr. Seifert, of Würzburg, gives a number of cases in proof of its utility. A five per cent. solution is painted over the affected surface, and a two per cent. solution is used as a gargle. The results which follow are softening and detachment of the exudation, lessening of the glandular swellings, diminution of the fetor, and an improvement in the general state manifested by the decline in temperature and pulse. He also allows ice freely, but no other remedy appears to be used. If good results are obtained from treatment so little perturbing, it is really an important contribution to our resources.

This practice is not altogether novel. Quinia in solution sprayed freely over the throat, has been used in diphtheria with success, just as Seifert is using chinoline. It is not possible to estimate the quantity of chinoline swallowed, and hence the part in the result due to the systemic action is not separable from that due to the local. As Seifert only uses the remedy in applications to the locality affected, he probably considers the disease local at the outset, and hence most effectively treated by topical measures.

MALARIOUS WATERS.

THE Wheeling, West Virginia, daily papers of June 23, contain reports of a special meeting of the doctors of that city to confer with Dr. Charles Smart, U. S. A., and arrange for coöperation in an investigation into the propagation of malaria by water-supplies, undertaken under the authority of the National Board of Health. It appears that four cities have been selected for the purposes of this investigation—Yonkers, N. Y.; New Haven, Conn.; Paterson, N. J., and Wheeling, W. Va. The first has some local sources of malaria along the valley of the creek which furnishes its water power. The second, also, has some marshy spots which may complicate the inquiry; but Paterson, which suffers a good deal from malaria, appears free from local sources of exhalation. Wheeling, on the other hand, is reported by its professional men as being a

non-malarious city. The experiment includes the weekly analysis of the water-supplies of these cities by Dr. Smart, while the medical men make note of their malarial cases, and report them weekly to the Board, that at the end of the year it may be observed whether there is any coincidence between the times of prevalence and certain results of the chemical investigations. Incidentally, during the summer, the ice supply will be examined; and where the physician in attendance on any malarial case unconnected with the city supply doubts the quality of the water used, and desires its analysis, arrangements will be made to have it examined. This is a good work, and we are pleased to learn that the busy practitioners of the cities in question have entered heartily into the matter, and will, without exception, report their cases in connection with the analytical work.

CURARE IN EPILEPSY.

THE important results obtained from the subcutaneous injection of curare or woorara, in epilepsy, may be a justification for a few lines on this topic.

In the first place, it should be noted that the specimens of this drug vary much in activity. Hence in beginning the use of a new supply, its strength should be ascertained by careful administration of minimum doses. Solutions are made by the aid of a little acetic, muriatic, or sulphuric acid, which may then be neutralized by sufficient ammonia added very cautiously. The solution should then be filtered. When kept for a time—for a few days, indeed—five minims of liquefied carbolic acid should be added to each ounce of solution, to prevent change.

In epilepsy this remedy was first used on a large scale by Voisin and Lionville, and by them was pushed to the utmost limits of safety. The most remarkable curative results have been obtained by Kunze. He injects a dose of about two and a half grains every five days, and this amount he says produces no distinctive physiological effects. Kunze reports three out of thirteen old epileptics cured by this treatment. If there is no improvement after four or five injections it is useless to continue it.

The reader, we hope, will not confound curare with *curarine*, the alkaloid discovered by Preyer. It is the crude drug to which reference is made above. Before administering the dose recommended by Kunze, the strength of the specimen should be ascertained.

CRUELTY TO HORSES.

FEW of us wish to be cruel to our faithful, dumb animals, yet how many are! Let any one try to pull a heavy burden, with his head in the air, and see how hard it is. We flex the neck involuntarily,

because we well know that that posture gives at once both the greatest pull and the greatest ease. As with man, so it is with the beast.

Yet our poor horses are reined up so tightly by the short bearing- or check-rein that their flexor muscles have no play at all. It is sheer torture to keep them so, hour after hour, merely to give a stylish appearance. To drive without any check-rein is impracticable. We have observed that a number of doctors have tried it, but, after a trial, they have abandoned it. The horse gets his head in the wet and the dirt, and soon presents a sorry appearance. But we plead for a very *loose* check-rein. Our horses are so faithful to us that gratitude as well as self-interest should be on the side of kindness. Again, now that the hot weather is upon us, we plead for at least one midday drink of water. The Fountain Societies have provided suitable drinking-troughs in many cities, and where they have not, there are usually facilities provided in front of many taverns. Any one who drives much appreciates very heartily the benevolence of such a provision for the wants of brutes.

While writing of horses, we venture to say a word as to that much vexed question, the horse-shoe. Any one who will take the trouble to examine, even casually, the anatomy of the horse's foot, will see that the frog is a wedge of elastic tissue fitted for concussion. Each time it pounds the earth, it spreads the hoof laterally by reason of its shape, for it is not only a wedge antero-posteriorly, but also vertically. It is fitted for concussions as perfectly as is the sole of the dog or the cat.

We know it is a moot point among even good horsemen as to whether in shoeing frog-pressure should be courted or avoided. Experience, we believe, will be in favor of frog-pressure, and both anatomy and common sense are on its side. The frog is precisely fitted, as we have said, for such pressure, and even our stony street pavements do but harden and develop the frog, just as the bare-footed boy has his foot-sole toughened. Xenophon tells us, in his school for horsemen, that colts brought up on dry, stony soils never need protection.

The ordinary shoe, with heel and toe cork, lifts the foot-sole from the ground, and prevents such frog-pressure. But, as a rule, such horses have more or less contracted heels, and have not a long, free stride. Their gait is "groggy." Take off such shoes, and put on the Goodenough or a similar shoe, and it is remarkable to see how their gait improves, and how the heel expands. In the winter time, owing to the ice, it is necessary to shoe them with corks say two or three times; all the rest of the year the Goodenough, applied cold, is by far the best shoe. We speak after considerable experience.

MEDICAL EDUCATION IN OHIO.

DR. JAMES E. REEVES, President of the West Virginia State Medical Society, in his address at the late annual meeting, which we gave on page 609 of our issue for June 3, has taken up a number of timely topics, and among others he alludes to the question of "cheap diplomas" in Ohio. With a Darwinian exactness, he gives facts to support his assertions. Precisely one month after application, a candidate just rejected by the District Board of Examiners at Wheeling, is said to have received his diploma from the Columbus Medical College, along with a class whose attainments in anatomy would be amusing were such ignorance not possible sources of tragical dangers to the community.

If the facts are *not* as stated, the Columbus Medical College, in justice to itself, should instantly and conclusively disprove such responsible and publicly made assertions. If they *are* so? Alas! we have no tribunal save that of public opinion at which such a college can be tried. But public opinion should make its sting felt.

We often hear vague assertions that some college has done suspicious things, but action can not be taken on mere suspicion. Here, however, is a specific case—names, dates, and all, with a responsible man back of it. Let us have the fullest investigation by the Association of Medical Colleges, of which, at the last report, this College was still a member, though a delinquent one.

We are glad to join with Dr. Reeves in commending the first-class colleges of Ohio, and are pleased to see that an Ohio journal (the *Cincinnati Lancet and Clinic*) has the courage to reprint the address. If such outrages exist, the colleges and medical journals of Ohio owe it to themselves, as well as to an imperilled community, not only to enter an emphatic protest against them, but to put a stop to them.

THE FEES OF THE MEDICAL ADVISERS OF PRESIDENT GARFIELD.

WHATEVER may be thought of the abstract injustice of the proposition made by Senator Vest, of Mo., to reduce the sum total of the expenses incident to President Garfield's illness, there can be no difference of opinion as to the execrable taste of his accompanying remarks, which were characterized by a shameful absence of both decency and veracity. That the faithful, laborious, and self-sacrificing services of such men as Dr. Agnew and Dr. Hamilton, rendered at the urgent request of a sorrowing wife, and in response to the almost imperative demand of members of the Cabinet, should be made the theme for the scurrilous attacks of an ignorant politician, must be a source of regret to all intelligent persons, and we are surprised that Senators, most of whom,

as lawyers, are familiar with the value of the best professional advice, should allow themselves to be influenced by Mr. Vest's cheap rhetoric.

In the light of the elaborate review of the treatment of the late President, which we recently published, it is unnecessary to enter into any refutation of Mr. Vest's invectives, but we must call attention to the crying injustice of speaking of the compensation assigned to the surgeons in attendance as excessive. Their services were in every respect of an extraordinary character, involving an unusual expenditure of time and labor, the assumption of a tremendous responsibility, and involved the neglect of their personal affairs to an extent which was in itself a source of great inconvenience, and of serious loss of professional income. The customary fees of men of their standing and reputation, for single visits to distant cities often equal what the Senate now proposes to award them for weeks of almost exclusive and unremitting attention.

It should be remembered, too, that the duty of the Government in this case is self-imposed, that no claim has been made by these gentlemen for remuneration for the services which they freely rendered in response to the imperative summons from the White House, and that, therefore, no shadow of an excuse has been offered for Mr. Vest's scandalous abuse of them on the floor of the Senate, which has thus far been their only official recompense.

THE NEW SURGEON-GENERAL OF THE ARMY.

UNDER the provisions of the Army bill recently passed, providing for the retirement of officers upon their reaching the age of 64, Surgeon-General Barnes has been retired, and, on the 3d inst., the President nominated Col. Charles H. Crane to fill the vacancy thus created.

Dr. Crane is the son of an army officer, and was born in July, 1825. His appointment as Assistant-Surgeon in the army dates from February, 1848. He first went with troops to Mexico, and at the close of that war was sent to Florida, where he served in the Seminole war. In 1852 he was transferred to the Pacific coast, where he was stationed until 1856, when he was placed on duty in New York, where he remained until the end of 1861. He then became Medical Director in the Department of the South, and so continued until the fall of 1863, when he was placed on duty in the Surgeon-General's office at Washington. At the close of the war, in the organization of the Medical Department, he was made Assistant Surgeon-General, which office he has held to the present time, discharging its duties to the satisfaction of all concerned. The Medical Department of the army is to be congratulated upon the selection for its chief

of a gentleman who has been so thoroughly identified with it and who so fully understands its organization and wants.

SURGEON-GENERAL BARNES carries with him into retirement the consciousness of a long and useful official life, and the sincere regard, not only of the Army Medical Corps, but the profession throughout the country.

WE learn with great regret that the appropriation for the National Board of Health, as reported to the House in the Sundry Civil Bill, is insufficient to meet its requirements. Not long since we noticed, with satisfaction, its annual report, and its weekly bulletins have been of the greatest value in spreading a knowledge of sanitary matters of national importance; in co-ordinating our otherwise incoherent sanitary legislation; in publishing researches of great value; and in collecting statistics otherwise unattainable, either at home or abroad. We trust that no such false economy will be carried out, and we earnestly urge our readers to write at once to their representatives and protest against it. The session is nearing its close, and immediate and vigorous action is needed to make our legislators acquainted with the sanitary needs of the country.

As a set-off to the extraordinary cases of pregnancy early in life, we notice that Dr. Kennedy lately presented to the Obstetrical Society of Edinburgh a paper on a case of pregnancy at 62 years of age; Dr. Wilson related one of a married primipara at 49, and Dr. Spence that of a frail maiden who, though not a wife, became a mother for the first time at 50 years of age.

PAWLK has proposed an ingenious method of exploring the ureters in the female, which, in certain cases, may prove very useful.

Placing the patient in the knee-elbow posture, the vesical triangle is more or less clearly defined on the anterior wall of the vagina, its apex being marked by a slight elevation, and its sides and base respectively by furrows and ridges. The furrows indicate the direction in which the instrument is to be passed, and, by a little searching, the orifice of the ureter may be found and catheterized even beyond the brim of the pelvis. Not only the distance to which the instrument can be introduced is an assurance that we are in the ureter and not the bladder, but we have two others. If in the bladder, the cavity of that viscus allows of free movement, which is not possible if the instrument be caught in the orifice of the ureter, and if the bladder be injected with milk or other colored fluid, the escape of milk or of clear urine by the catheter will give information as to the position of the catheter.

SPECIAL ARTICLE.

OFFICIAL.

REPORT OF THE
POST-MORTEM EXAMINATION OF THE BODY
OF CHARLES J. GUTEAU,

WHO DIED BY HANGING JUNE 30, 1882, AT THE
UNITED STATES JAIL, WASHINGTON, D. C., IN
EXECUTION OF JUDICIAL SENTENCE.

THE following physicians were present:

Dr. Noble Young, Physician to the Jail; Dr. A. McWilliam, his assistant; Dr. C. H. Nichols, Supt. Insane Asylum at Bloomingdale, N. Y.; Dr. A. E. McDonald, Supt. Insane Asylum, New York City; Dr. W. W. Godding, Supt. Government Insane Asylum, District of Columbia, and Drs. Witmer and Patterson, his assistants; Dr. Geo. L. Porter, Bridgeport, Ct.; Dr. Johnston Eliot, Washington, D. C.; Dr. D. R. Hagner, Washington, D. C.; Dr. Robert Reyburn, Washington, D. C.; Dr. W. J. Morton, Editor of *Journal of Nervous and Mental Diseases*, New York City; Dr. C. L. Dana, New York City; Dr. C. K. Mills, Philadelphia, Pa.; Dr. D. C. Patterson, Coroner, Washington, D. C.; Dr. J. F. Hartigan, Physician to Coroner; Dr. C. H. A. Kleinschmidt, Washington, D. C.; Dr. P. J. Murphy, Washington, D. C.; Dr. Z. T. Sowers, Washington, D. C.; Dr. F. B. Loring, Eye and Ear Dispensary, Washington, D. C.; Dr. D. S. Lamb, Acting Ass't Surg., U. S. A., and Dr. J. C. McConnell, Microscopist, and Mr. Ernst Schafhirt, Anatomist, Army Medical Museum.

The custodian of the body, Rev. Dr. W. W. Hicks, having requested me to make the examination, and this request being in accordance with one previously made by Dr. Young, I had prepared the following course of procedure, with the object of securing the most exact and satisfactory results: The external appearances of the body should first be noted; the cavities, except the spinal, should be opened and their contents examined; that after the removal of the brain, and its examination without incision, it should be transferred, properly guarded and protected, to the Army Medical Museum, where, through the courtesy of the Curator, Surgeon D. L. Huntington, U. S. Army, it would be photographed and then a cast be taken; that its internal structure should then be observed, and portions set apart for microscopical examination; and that the entire operation should be completed as far as possible the same day, to enable the physicians resident elsewhere, present by invitation, to return promptly to their homes; and that the notes should be taken in duplicate.

Shortly previous to the examination, it was agreed between Rev. Dr. Hicks and the United States District Attorney, Geo. B. Corkhill, that the charge of the removal, preservation, and disposition of the brain should be vested jointly in Drs. Lamb, Sowers, and Hartigan, and that the microscopical examination should be made by parties to be selected by the gentlemen making the agreement.

The examination was then conducted by me,

assisted by Drs. Hartigan and Sowers and Mr. Schafhirt, and as near as possible in the order proposed. Drs. Kleinschmidt, Patterson, and others, took notes, and Mr. Charles Trought, of the Museum, the photographs.

By reason of delays, for which neither I nor my assistants were responsible, the examination was not begun until 2.30 P. M. (one hour and a half after death), in consequence of which the photographing was less successful, and a cast was impracticable.

The body, which was of a faint yellowish tint, was that of a man about five feet seven inches in height, and weighed one hundred and forty-five pounds.

The eyes were examined by Dr. Loring, who reported that the pupils were slightly and equally dilated; the vitreous was cloudy, and the fundus indistinguishable. The conjunctiva of the left eye was congested. He repeated the examination two hours later, and noticed an appearance as of transverse fracture of the lenses.

A small white scar, directed obliquely downwards, forwards and to the left, and confined to the scalp, was observed midway between the top of the left ear and median line of the head.

There was a yellowish furrow, a few lines in width, extending around the neck in a direction downwards and forwards, in line of rope. On dissection, the sterno-cleido-mastoid muscles were found to be torn in two, about half way between their points of origin and insertion. The thyro-hyoid ligament was also ruptured, and the hyoid bone and thyroid cartilage widely separated. The large bloodvessels were not injured; neither was there fracture nor dislocation of the vertebræ.

The sexual organs were well developed; the mouth of the urethra was moist.¹ There was also phimosis, on reducing which, a considerable accumulation of smegma was observed.

Skull.—The right parietal bone was slightly flattened over a space about two inches square, just back of the fronto-parietal suture and to the right of the interparietal; there was a slight flattened elevation on the corresponding internal surface of the calvaria. The frontal suture was obliterated, the others quite distinct. A number of Pacchionian depressions were observed near the groove for the longitudinal sinus. In thickness the skull presented nothing remarkable.

Membranes of the Brain.—The dura mater was firmly adherent to the anterior portion of the calvaria in the vicinity of the longitudinal sinus.

There were adhesions of the dura also to the base of the skull; they were quite firm and situated in the several fossæ, and most marked in the deeper parts of the fossæ, where also there were small patches, abruptly limited, of immovable arborescent congestion, with, however, no attendant thickening or pigmentation; this *stagnation* was again most marked in the left anterior and middle fossæ. There was no congestion of the dura except at the points just noted.

The dura and pia mater were adherent to each

¹ During the suspension of the body, erection of the penis took place, and the clothing was afterwards found to be moist.

other and to the brain on both sides along a limited portion of the longitudinal fissure in the vicinity of Pacchionian granulations.

The dura was slightly thickened along the longitudinal sinus. It was also slightly thickened and opaque along a portion of the line of the middle meningeal artery on each side.

The arachnoid of the upper convexity of the brain presented in many places, where it covered the sulci, small patches of thickening and opacity; elsewhere it was normal.

The pia mater was anæmic anteriorly; posteriorly there was slight hypostasis.

The cerebral vessels appeared to be normal in all respects.

The orbital plates were well arched, and presented many conical eminences of large size. There was no roughening anywhere of the inner surface of the skull.

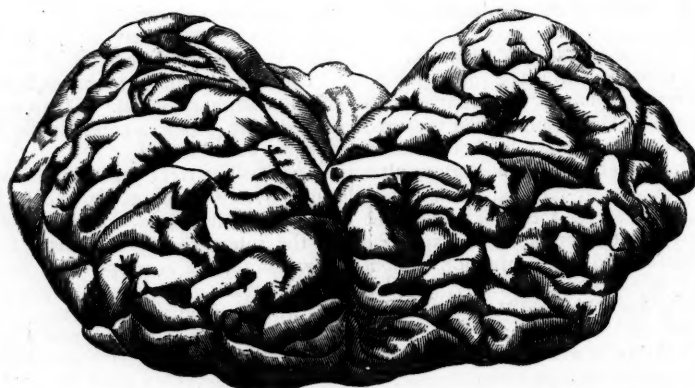
The brain was firm. Its weight, including the cerebellum, pons and medulla, and a portion of the dura, was 49½ ounces. It was slightly flattened in the region corresponding to the flattening of the parietal bone above mentioned. On section of the cerebrum there was an appearance as of slight thinning of the gray cortex; the measurements taken, however, gave depths of $\frac{1}{8}$ to $\frac{1}{4}$ inch in close proximity to each other. The white substance was almost absolutely anæmic. The cerebellum and island of Reil were both covered on each side.

on the left side, except that the fissure was crossed by a small bridge near its centre. The second and third frontal fissures presented nothing remarkable. There were numerous secondary fissures.

The præcentral and retrocentral fissures, on each side, were well defined, and were unconnected with other fissures. The inter-parietal fissure, on each side, terminated in the transverse occipital, separated only by a slight bridge. The parieto-occipital was well marked on each side. The transverse occipital fissure on the right side was ill defined; it began on the median surface and extended well outwards. The first temporal fissure was well developed on the right side; on the left, was not of the usual length. Wernicke's fissure was well marked on the left side, but not confluent.

The calloso-marginal fissure was double on each side; the upper of the two being probably the true one. On the right, the upper one extended back to the anterior margin of the paracentral lobule; on the left, not quite so far. The lower one extended on the right side to a line about half an inch in front of the parieto-occipital fissure, from which it was separated by a small bridge; on the left side, also, by a bridge of larger size.

Orbital Surface.—On the right side were seven fissures radiating from a circular fissure surrounding a small isolated convolution; on the left side were five fissures radiating from a small shallow depression. The left collateral fissure was well defined, extending to the anterior extremity of the tem-



Upper and anterior view of the brain, in which also a portion of the dura mater appears.

The Fissures.—The fissures generally presented a considerable depth; in many places, as in the right fissure of Rolando, amounting to $\frac{3}{8}$ inch.

The right fissure of Sylvius was typical; the left was separated from the first temporal fissure by a slight bridge deeply situated. The right fissure of Rolando did not connect with the fissure of Sylvius; the left was separated only by a small bridge deeply situated. Both were separated from the longitudinal fissure.

The first frontal fissure on the right side was not connected with that of Rolando, but at the posterior part was crossed by a secondary fissure. The same

poral lobe; the right was also well marked, but did not extend so far back as the other, and there was an attempt at confluence anteriorly with the temporo-occipital, a small bridge intervening. The left temporo-occipital fissure was well defined.

The Convolutions.—The following alone call for remark: The ascending frontal was well defined on each side.

The ascending parietal on the right side was well developed in its lower three-fourths, but narrowed in the upper fourth. On the left side the narrowing was less marked. The island of Reil presented on the right side five fissures and six straight gyri; on

the left side, seven fissures and eight straight gyri. The paracentral lobule was well marked on the right side; small on the left.

The accompanying drawing of the brain is from a photograph taken four hours after death.

Thorax and Abdomen.—The usual median incision was made, and the abdomen opened. There was an extravasation of blood into the right pectoralis major muscle near the second rib. The adipose layer of the abdominal section was one inch in thickness. The dome of the diaphragm extended up to the fourth rib on each side.

There were old pleuritic adhesions at the apex of the right lung; the upper and middle lobes were congenitally united by connective tissue. The lung was normal throughout. There were also old pleuritic adhesions of the left lung to the diaphragm and between its lobes; three small tubercle-like, pigmented patches were observed in the upper lobe. The heart weighed ten and three-quarter ounces; its muscular substance was apparently normal. There was an abundance of fat upon its anterior surface and a villous patch of old pericarditis near the apex of the left ventricle. The right ventricle contained a little blood just forming a clot.¹ The valves were normal. The aorta was slightly atheromatous for a short distance above the valves.

All of the abdominal viscera presented large accumulations of fat. They were normally situated. The liver was congested; the gall-bladder contained a little bile; the spleen was lobulated and enlarged; it weighed eighteen ounces; the capsule was bluish, the substance brown; the Malpighian bodies hypertrophied;² the pancreas was normal; the stomach contained food;³ the intestines appeared normal, were not opened; the kidneys were congested; there was a small superficial serous cyst on the right one. The bladder contained a considerable quantity of urine.

The results of the microscopic examinations will be reported hereafter.

D. S. LAMB.

ARMY MEDICAL MUSEUM, WASHINGTON, D. C.,
July 4th, 1882.

SOCIETY PROCEEDINGS.

OHIO STATE MEDICAL SOCIETY.

Thirty-seventh Annual Session, held at Columbus, June 13, 14, and 15, 1882.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 13.—The Society was called to order by the PRESIDENT, DR. STARLING LOVING, of Columbus. DR. H. G. LANDIS, of Columbus, read a paper on

THE PROGRESS OF OBSTETRICS AND GYNECOLOGY.

He first discussed the use of anæsthetics in labor, and condemned the practice upon the following grounds:
1. Labor is not normally attended with much pain.
2. The duration of labor is normally brief. 3. If labor is

¹ A considerable quantity of dark blood ran out of the heart in the separation of the heart and lungs.

² Dr. Young states that the man was subject to malarial attacks while in the jail.

³ He had eaten a dinner about an hour and a half before the execution.

either painful or long, it is due to pathological conditions which the physician should discover and remove, instead of smothering the evidences of their existence by anæsthetics. Credé's method of extracting the placenta was warmly advocated as the best method of averting *post-partum* hemorrhage and all other puerperal complications. Antiseptic midwifery was briefly discussed, with quotation of the views of Barnes. Lacerations of the perineum and cervix during labor were treated of, the author recommending a conservative course, having doubts as to the necessity for frequent operations, especially in the latter class of cases. He thought lacerations would be less frequent if care were taken to extract the head during the absence of pains, while womb and woman were passive.

DR. D. N. KINSMAN, of Columbus, read a lengthy paper on the

ETIOLOGY OF CONSUMPTION.

According to Jaccoud, consumption is hereditary, in-born, or acquired. Heredity and acquisition only were treated of in this paper, in which the writer maintained the direct transmission of the disease, as well as the transmission of a morbid tendency toward it. The second point was supported by the citation of many cases where there seemed to be strong evidence that the disease was communicated by aerial contagion. Contagion from food was inferred as possible. *Perlsucht*, or bovine tuberculosis, is a disease distinct from human tuberculosis. The same form of tuberculosis affects cattle as the human subject; hence the consideration of tuberculosis in cattle becomes of importance to public health. The paper was illustrated by microscopic drawings from specimens of tuberculous lungs, which were used to enforce the distinction between catarrhal pneumonia and caseous or tuberculous pneumonia, when the stage of consolidation of the lung is reached.

In the discussion, DR. J. H. POOLEY, of Columbus, stated that he thought that the paper was not a theoretical one, but one of practical value. He had for a long time been convinced that phthisis was, under certain circumstances, contagious, and related a confirmatory case. He questioned the writer's statement that, because consumption is contagious, it cannot therefore originate *de novo*; chancroid is contagious, but it certainly can originate *de novo*, through filth, promiscuous intercourse, etc.

In response to a question, the author stated that the period of incubation would depend upon attendant circumstances in each case.

DR. REUBEN A. VANCE, of Cleveland, read a paper on the

SURGERY OF THE ARTERIES,

in which he traced the distinction between disease of the arterial walls and wounds of arteries, showing the influence of the sac in the one case, and the results of extravasation of blood in the other, and objected to applying to the two the common name of "aneurism." He described nature's methods of curing aneurism by depositing layers of fibrin on the walls of the sac until the sac, or even the calibre of the artery, is obliterated. In some cases a layer of this fibrin becomes detached, and blocks up the efferent artery, when coagulation occurs, resulting in cure. Or, finally, inflammation and suppuration may set in, destroying the tumor, but generally killing the patient. In treatment, the force of the circulation need be but slightly diminished to induce a tendency to the deposit of these layers. This may be brought about by rest, position, pressure, or compression. Electro-puncture, the "old operation," manipulation and ligation, or torsion, are more radical means. The operations of Anel, Hunter, Brasdor, Wardrop, and Syme, were reviewed and compared.

The fact that secondary hemorrhage frequently occurs from the end of the artery, beyond the ligature, was shown to depend upon nature's failure to properly seal it. Of radical operations for aneurism, Hunter's is undoubtedly the surgeon's choice—the distal operations being those of necessity.

After detailing the treatment of most cases of so-called false aneurism, the author found three classes of cases in which opinions differ as to the best course to be pursued, viz.: 1. Where a pulsating tumor forms about a wounded vessel, after, perhaps, the surface incision has healed. 2. Where blood has accumulated, and still accumulates, in the tissues about a wounded artery, external hemorrhage having ceased. 3. Where an enormous amount of blood distends the parts about a wounded artery. Dr. Vance held that in these cases, if rest, position, pressure, and compression failed to cure, the surgeon should cut down, turn out clots, and ligate above and below the seat of the injury. By so doing, he ligates no more than is essential, perhaps only a branch instead of a main trunk. He summed up as follows:

1. Bleeding from an accessible artery should be checked by twisting or tying both ends of the vessel.
2. Moderate hemorrhage from one not readily reached, should be controlled by rest, position, local pressure, compression, etc.
3. Severe hemorrhage from an artery, not controllable by pressure, etc., requires that the vessel be sought in the wound and both ends tied or twisted. (a.) An exception was noted in certain wounds of the hand or foot, where the danger of damaging important structures is great; here the ligation of femoral or brachial, with pressure, was advised.
4. In fractures complicated by wound or rupture of a large artery, the surgeon should at once cut into the swelling, turn out the clots, and twist or tie both ends of the vessel.
5. In pulsating tumors, following wounds or injuries of arteries, should rest, etc., fail, the tumor should be opened, clots removed, and the vessel tied or twisted above and below the lesion.
6. When a wound or injury of an artery has led to extravasation, no operation should be performed so long as rest, etc., can restrain further hemorrhage. (a.) An exception is to be noted where the extravasation is so great as to threaten gangrene, or where, after checking further increase, the above measures fail to reduce the size of the tumor.
7. If the extravasation caused by arterial wound or injury cannot be held in check and further hemorrhage prevented by position, etc., the tumor should be at once cut open, the clots removed, and the vessel tied or twisted, above and below the point of injury.

DR. D. HALDERMAN, of Columbus, thought the writer had failed to impress the treatment of diffused aneurisms, or traumatic aneurisms, where it was necessary to cut into the tumor and ligate both ends of the artery—Syme's operation. He thought one great danger in this operation lay in the risk of wounding the accompanying veins. Several years ago he had one of these cases, involving the point of termination of the femoral in the popliteal, in which he made the Hunterian operation successfully. The man is alive yet, but has a small tumor.

DR. J. H. POOLEY said that every surgeon should have a well-defined plan for meeting all emergencies, and aneurism belonged in this category, at least in this country. He did not quite see the pertinence of the criticism of the present nomenclature: "false aneurism" conveys a definite meaning, and is well enough retained. He believed in Mr. Guthrie's axiom, "Tie both ends of the artery," when possible. Syme's operation—the so-called "old" operation—is an operation of necessity, not of choice. Thought ordinary care and prudence would prevent injury to the veins. Did not think there was much new, or could be much new, in the surgery of the arteries since the days of Hunter.

EVENING SESSION.—This was occupied by a lecture by PROF. EDWARD ORTON (late President), of the Ohio State University, on

THE RELATION OF THE STATE TO PUBLIC HEALTH.

The lecturer took for his text Franklin's aphorism, "Public health is public wealth," and also Disraeli's statement, that "the health of the people is the first duty of the statesman." He first spoke of the loss to the State of sickness, especially of epidemics, referring to the estimated loss of Philadelphia, during the small-pox epidemic of 1871-2, of \$24,000,000. With individual cases of sickness the State can have no concern, but in epidemics its power to act is universally conceded.

The lecturer sketched the growth of sanitary measures from the time of Moses, Plato, and Hippocrates, to the present, showing that during the fearful pestilences of the Dark Ages, "The curse causeless did not come." He thought the time was near at hand, which Dr. Benjamin Rush predicted, "when our courts of law shall punish cities and villages for permitting any of the sources of bilious and malignant fevers to exist within their jurisdiction."

He entered a plea for *system* in the making of public sanitary improvements, and protested against the work being undertaken by fickle-minded, temporary, and changing municipal boards. The work must be planned by a competent civil engineer. He spoke of a trunk sewer, "in a principal street in a great city, that, like a gorged serpent, was larger in the middle than at either end;" of others many times too large for any possible demand, which thus became mere reeking cesspools; and, worse still, of others built in villages, for general purposes, before a water supply had been secured or even thought of.

He next spoke of the pollution of rivers, and the necessity of laws for their protection. No city thinks of those that live below it, the practical doctrine being, "the devil take the lowermost;" and he quoted with effect Coleridge's lines—

"The river Rhine, as is well known,
Washes the city of Cologne;
But, Oh! Ye gods and powers divine,
What then shall wash the river Rhine?"

He closed with a line of argument showing the importance of and necessity for a State Board of Health.

WEDNESDAY, JUNE 14.

MORNING SESSION.—W. T. COLETT, M.D., L.R.C.P. London, of Cleveland, read a paper on the

ETIOLOGY OF CERTAIN CUTANEOUS AFFECTIONS.

Eczema he regarded as "a superficial dermatitis due to an *irritation* of the sensitive filaments of the peripheral nerves," the origin of this irritation being either external, *i. e.*, local, or internal, *i. e.*, constitutional. Psoriasis he thought was a local disease.

DR. N. P. DANDRIDGE, of Cincinnati, read a lengthy report on the progress in

SURGICAL DISEASES OF THE GENITO-URINARY ORGANS.

He spoke quite at length of prostatic diseases and of Bigelow's operation.

DR. VANCE said he would not exalt Bigelow's operation, perhaps, as highly as the writer, but he regarded it as a good operation. The operation itself was, however, but the natural outgrowth of the operations that preceded it.

DR. A. C. MILLER, of Cleveland, thought that enlargement of the prostate was of more real importance than all the other troubles described. Prostatorrhea, or chronic gleet, is due to a diseased gland, and its treatment by injections borders on malpractice, as liable to result in stricture or abscess.

DR. P. S. CONNER, of Cincinnati, said that cutting succeeded so well, that, for himself, he did not care to change to crushing under ordinary circumstances. If he had a stone in his own bladder, he would prefer to be cut. Better results follow; he once saw an autopsy at which eight calculi were removed from a man's bladder, in whom lithotripsy had been performed seven times. Cutting would have removed all these at once. He preferred rapid crushing to slow, but no one should attempt the operation until perfectly familiar with the instrument. For inflammation of the prostate, he recommended hot water rectal injections, by means of a double canula, or even an ordinary syringe, the stream being directed against the anterior wall of the rectum.

DR. S. C. DUMM, of Constantia, spoke favorably of electricity for hyperæsthesia of the urethra.

DR. P. S. CONNER, of Cincinnati, read a paper on

EXTERNAL PERINEAL URETHROTOMY,

in which he highly recommended the operation in cases of deep, impassable strictures.

DR. J. H. POOLEY said that external perineal urethrotomy was his favorite operation, and he was glad the writer advised it. The doctrine that "where water can come out, a bougie can go in," is not true either in theory or practice, and after failure with bougies the knife is the best means of relief and cure.

DR. VANCE said there was much to be said in favor of the operation advocated, but he preferred the internal operation. In the great majority of cases, a single filiform can be passed; by letting this remain for twenty-four hours, a No. 6 or No. 10 can be passed, and then internal urethrotomy can be performed, with a better result than that obtained by the external incision.

DR. W. J. SCOTT, of Cleveland, said he had several times failed with filiform bougies, but when cut down he ordinarily had little trouble. In these cases he adopted the following method: pass a sound, of fair size, to the stricture; cut down, taking care to make an incision smaller than the end of the sound: withdraw the sound a short distance, and then with a small probe, working through the incision, find the passage, follow the probe with a director and then use the knife. Pass a catheter, which is to be left in for some hours, until inflammatory deposits are thrown out so as to correct the curvatures. He had never failed with this method.

DR. SIDNEY NORTON, Professor of Chemistry in the State University, read a paper on the

CONTAMINATIONS OF DRINKING WATER.

No drinking water is chemically pure. The impurities, however, are not harmful if they consist of mineral matters, like clay or sand, which soon subside, or of fresh organic matters, vegetable or animal. Neither are the lime salts nor the alkalies harmful, unless in excess. The popular taste prefers a water of this sort. Neither is water harmful if it contain the final products of organic decomposition, viz., carbonic acid, ammonia, and the oxides of nitrogen, unless in large amount. But all decomposing organic matters are dangerous. One part in 1,000,000 will render water dangerous, as it may contain soluble and organized ferments, capable of multiplying a thousand-fold in a short time, and of inducing zymotic diseases. The writer accepted the conclusions of the London Board of Water Supply, that running waters are self-purifying, as are also those of deep wells and perennial springs.

AFTERNOON SESSION.—The following is the result of the

ELECTION OF OFFICERS.

President.—C. P. Landon, M.D., of Westerville.

Vice-Presidents.—Drs. E. Sinnett, A. C. Miller, N. Gay, W. B. Hedges.

Secretary.—Geo. A. Collamore, M.D., of Toledo.

Treasurer.—T. W. Jones, M.D., of Columbus.

DR. STARLING LOVING, of Columbus, then delivered the

PRESIDENT'S ADDRESS.

He recommended a fixed place of meeting, which would naturally be at Columbus, where could be erected a suitable building for meetings, and a library and museum founded. The Code of Ethics was then considered, and the opinion was expressed that when we consent to associate professionally with irregulars we shall not elevate but, on the contrary, degrade ourselves from the high position we have always occupied, to the level of a mere trade, for most of them use their name as a trade-mark only, and appreciate fully that it comprises their sole claim upon the public.

Of course, if we modify our Code so as to permit fraternization, however limited, with homœopaths, we shall be obliged to extend the same courtesy to eclectics, spiritualists, uroscopists, *et id genus omne*, including Lydia Pinkham and the "retired clergyman whose sands of life have nearly run out," for, in the language of the surgeons, the line of demarcation is not very broad. The thought is not overly pleasant! It might be more so if what was done by the New York Society had been accepted as a concession and an expression of good will, but it was not. The homœopathic journals claim it as a great victory for their side, and as evidence that the regular profession is trembling for existence.

Finally, if we go with the New York Society, or, rather, the minority of that Society who changed the Code to suit themselves, we must consent to be dropped, like those gentlemen, from the fellowship of our own profession. This morning, in adopting your new Constitution, embracing the Code of the Association, you declared against it. The thing is impossible. The American Medical Association, our Supreme Court, has unanimously declared against it.

The evils arising from the increasing use of non-official and proprietary medicines, were noticed, and the methods of introduction, by seductive samples and equally seductive agents, graphically described. The growing use of such remedies was deprecated.

The failure of the Board of Health bill to pass was deeply deplored, and the importance of the measure insisted upon. In this connection the speaker referred to the poorly constructed and illy-ventilated State buildings, including the school-houses, which are so badly arranged in these particulars that myopia is rapidly increasing. He also spoke of the necessity of supervision in the location of towns, with their water supply and sewerage; of the adulteration of food; of protection against epidemics; of vital statistics, and of other matters properly coming under the control of a Board of Health.

In case of failure in establishing such a board, it was recommended that an attempt be made to have the State create a Board of Censors, to examine all who propose to practice, and "to stand between the people and the medical colleges." If both these plans fail, then the members of the Society should refuse to receive incompetent men as students.

The Address, though long, was listened to with the closest attention throughout.

DR. S. C. AYRES, of Cincinnati, read a paper on

RETINITIS ALBUMINURICA.

After some general remarks, he referred to the comparative frequency of retinitis in cases of albuminuria. In 104 cases of albuminuria in the Cincinnati Hospital, during 1877, '78, '79, there were ten cases, or 9.6 per cent., of retinitis. Of these, five died, two were discharged improved, and three unimproved. He described the typical ophthalmoscopic appearance of the

fundus, and called attention to the necessity of the frequent use of the test-tube and microscope. He stated that nephritic retinitis occurred most frequently in cases of small granular or contracting kidney.

DR. PHILIP ZENNER, of Cincinnati, reported a *Case of Hemiplegia: Secondary Degeneration of the Pyramidal Tracts*.

DR. W. H. MUSSEY, of Cincinnati, next described the *Treatment of Chronic Cystitis by a Curette*, designed by himself for scraping the surface of the bladder.

The same gentleman also reported a case of *Removal of Astragalus for Necrosis*, in which his patient made an excellent recovery.

EVENING SESSION.—DR. J. R. BLACK, of Newark, delivered a popular lecture in the chapel of the Deaf-Mute Asylum, on *Preventing Diseases*, after which the members and invited guests partook of a banquet furnished them by the trustees of the institution.

THIRD DAY.

MORNING SESSION.—DR. G. S. FRANKLIN, of Chillicothe, read a paper on *Public Charity and the Medical Profession*. In this he dwelt especially on the defective and unjust laws in Ohio, relating to the care and medical treatment of the township poor.

DR. E. B. PRATT, of Mt. Sterling, read an exhaustive paper on the treatment of some of the more common forms of *Inflammation of the Knee-joint*. In acute inflammation he recommended rest, secured by Buck's extension apparatus, abstraction of blood locally, by leeches, cups, or incisions, diminishing the supply of blood by compressing the femoral with a sponge, cold, pressure by bandaging the joint over sponge. For erosion of the cartilages, use the actual cautery. After the acute stage has subsided, Sayre's knee-joint splint may be applied, so that the patient may be able to take exercise. Constitutional treatment from the outset, as needed. For the effusion, aspiration may be resorted to if necessary, but it should not be done merely for relief of pain, unless all other means fail. It will not shorten the acute stage. It should not be used when the effusion is purulent; the cartilages or bone being necrosed, make a free incision. It should be resorted to when the acute stage begins to subside, usually during the fourth week. For sub-acute inflammation use Sayre's splint, iodine, the rubber bandage, aspiration. Chronic inflammation requires extension, the cautery, pressure, thorough drainage, removal of necrosed tissue, ankylosis in straight position—if motion is despaired of, and lastly, excision or amputation. Medicated injections into the joint are apt to do more harm than good, and Listerism is not recommended.

DR. POOLEY strongly recommended irrigation by cold water through rubber tubing. Thought pain from effusion an indication for aspiration. For pressure, preferred adhesive straps. Proper classification would be into those cases involving the synovial membrane, and those affecting the bone. The latter are generally tubercular, and essentially chronic. Should be treated by plaster-of-Paris splint; put a thick sole on foot of sound limb, furnish the patient with crutches, and make him exercise. Amputation is safer and better than excision. It is not true that any sort of a leg is better than an artificial one.

DR. HAMILTON thought aspiration might be regarded as a curative measure, in acute synovitis, and related a case. Irrigation by tubing is efficient, but laborious and requiring attention. Advised extension to overcome flexion, and fixation by plaster.

DR. GARRISON, of Utica, while sanctioning all that had been said, recommended *hot* water to reduce the inflammatory action.

DR. MUSSEY, of Cincinnati, preferred Day's posterior

splint. Leave joint exposed, and apply cold water or leeches. Aspirate, or open joint with knife by valvular incision. If the limb is to be elevated, the surgeon must remember to slightly flex the leg, else the joint will be pinched.

DR. W. MORROW BEACH, of London, read a paper on *Achievements and Failures in Medical Art*.

DR. W. B. DAVIS, of Cincinnati, read a report on the

PROGRESS OF MATERIA MEDICA AND THERAPEUTICS.

Therapeutics was formerly based entirely upon experience; hence many of the triumphs of medical treatment in the past we now know were mere coincidences. Progress in therapeutics, like progress in the practice of medicine, must be based on a knowledge of anatomy, physiology, pathology, and chemistry. To discover errors is to make progress. Modern therapeutics has done this, and in addition our knowledge of the physiological action of quite a number of drugs is now firmly established. Progress in this direction has been so rapid of late that even the present generation of physicians may live to see many of our present empirical methods of treatment supplanted by others founded on the solid rock of science.

DR. JOSEPH EICHBERG, of Cincinnati, read a report on the

PROGRESS OF LARYNGOLOGY.

Two topics were embraced in this report, viz., the pathology of laryngeal phthisis and the identity of croup and diphtheria. The importance of early diagnosis was mentioned, and the means of making it by laryngoscopic examination described. Tubercular disease of the larynx may often be regarded as primary, simply because of our inability to recognize the early deposit of tubercle in the lungs.

The writer maintained the identity of croup and diphtheria, claiming that both the pathological and clinical features bear out such a view. He attempted to reconcile the differences seemingly existing between the two, and to show that they often bear the same relation to each other as do the mild and severe cases of an epidemic of any acute infectious disease, the differences in the symptoms being dependent upon differences in function of the parts involved.

DR. GEO. W. GARRISON, of Utica, read a report on

CANCER.

He thought cancer was the result usually of a local injury, and he denied its hereditary transmission. It may appear at any age, but is most apt to attack the tissues at the time when they are undergoing degenerative changes. Cancer cells cannot be differentiated from constructive cells; the caudate cell does not necessarily imply malignancy. As to treatment, he has found escharotics to give very favorable results in 35 cases.

DR. GEO. A. COLLAMORE, of Toledo, read a report on

PROGRESS OF MEDICINE.

He spoke of the experiments of Pasteur and their important relation to medicine; of Koch's supposed discovery; of pyrexia; of the treatment of scarlet fever and diphtheria; and of the salicyl compounds in rheumatism.

DR. A. M. BLEILE, of Columbus, read a paper on

DIGESTION.

This paper was based largely on original experiments. He condemned any attempt at using *ptyalin* in medicine, as its action is rendered *nil* in the stomach. Pepsin does little good in dyspepsia unless accompanied by hydrochloric acid, or bismuth, which latter acts as a local stimulus. Pancreatic ferment is destroyed when taken into the stomach, hence it is useless as a remedy.

It being now late in the afternoon of the third day, the remaining papers were referred to the Publication Committee, and the Society adjourned, to meet in Cleveland next year, at the time of the meeting of the American Medical Association.

TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, June 1, 1882.

THE PRESIDENT, EDWARD L. DUER, M.D., IN THE CHAIR.

DR. B. F. BAER related the history of a case of *Punctured Wound of the Pregnant Uterus; Partial Escape of the Fœtus into the Abdominal Cavity; Retention of the Fœtus Five Years.*

October 4, 1881, Catherine Curley presented herself at the Dispensary for Diseases of Women at the Hospital of the University of Pennsylvania, and gave a history which is essentially embodied in the following letter from her physician, Dr. John Keogh, of Killaloe, Ireland. (This letter was received after the patient had been treated as described in this paper, but as it gives an intelligent description of the case at the time of the accident, it was thought proper to insert it here.)

"Catherine Curley, who was within a week of her confinement, was standing upon a chair, the back of which, with the exception of two uprights, had been broken away. She was at the time collecting brambles, and in stretching for one over-reached herself and fell, and in the act of falling her right side came in contact with one of the uprights. A short time after she was found lying on the ground in a fainting condition, from which position she was removed to bed and I was summoned to see her. On examination I found a contused wound on the lower and right side of the abdomen, and in addition came to the conclusion that the womb was ruptured and that the fœtus had escaped into the cavity of the abdomen. There was intense tenderness and great distention. I immediately decided on giving her at once calomel and opium—the latter in large doses. After the third day I stopped the calomel and continued the opium. The pain and tenderness almost disappeared after a week, and I may say from that period until she left here she never had a bad symptom."

"Several medical men in this county expressed doubt about the correctness of my diagnosis, but I at once convinced them by presenting the woman for examination at Limerick, a city near here, where many men of eminence and long experience saw her."

Dr. Keogh does not mention that the prong of the chair was driven into the abdomen, rupturing everything before it except the skin, which, on account of its great strength and elasticity, escaped unbroken.

It would seem incredible that the pain and tenderness should have almost disappeared in a week, and that she should not have had a bad symptom until five years had elapsed. She, however, recovered from the accident and, strange to say, menstruated three months afterwards and has been doing so regularly ever since. To make matters worse, if possible, her husband, who was in the last stage of phthisis at the time, died within a week, and she was left without means to support a family of five small children. This she did through four years by manual labor. Three years ago she came to this country and settled in Salem, N. J., where last summer she was under the care of Dr. E. S. Sharp, at which time she passed through an attack of what seemed to be typho-malarial fever, in consequence of which she became somewhat emaciated, and her muscles became relaxed and toneless. This allowed a hernial protrusion through the puncture in the abdom-

inal wall; for this she sought relief, hoping to procure a suitable truss. I only obtained the history of the accident by direct questions in regard to the cause of the hernia, that being regarded by the patient as the greater difficulty and the one requiring treatment. Physical examination with the patient in the dorsal position revealed, by palpation of the abdomen, a circumscribed mass in the hypogastric region, extending as high up as the umbilicus, and a little farther to the left than to the right of the median line. It was about the size of the pregnant uterus at the sixth month, rather flaccid, and pressure on it gave to the hand the sensation of loose bones moving over each other—a kind of crepitus. On the right side of the abdomen, a little below the umbilicus, there was a round perforation, about the size of a silver dollar, which seemed to penetrate everything except the skin. Through this break in the abdominal wall the intestines protruded when she was upon her feet, constituting the ventral hernia for which she desired the truss. Examination *per vaginam* gave the following result: The cervix uteri was small, hard, rather low down, and pointing forwards in the direction of the vaginal orifice. The os externum was small and circular, but it was patulous, and flowing from it was a peculiar yellowish fluid, slightly fetid. The finger, carried posterior to the cervix, discovered the body of the uterus enlarged, and apparently expanded around the loose bones referred to above. Now, carrying the finger to the anterior surface of the cervix, the same bulging forward was discovered, and the same continuation of the anterior wall of the cervix into what appeared to be the anterior wall of the developed uterus. Bimanual examination seemed to confirm the opinion already formed that the foetal remains were still, in part at least, within the uterine cavity. On the right side of the uterus, near the fundus, there was a prominence; otherwise the walls were smooth. I now passed the sound through the os and into the uterine cavity, when it came upon a mass of bones which seemed to be loosely held together by disintegrating soft tissues. The instrument was readily passed to a depth of six inches, and could be moved about with the greatest ease, and without the least sensation of pain to the patient. Its withdrawal was not followed by any discharge. There was nothing about the case which led me to suspect even that the sound had not really passed into the uterine cavity, but, instead, that it might have passed through an opening in the uterine wall, near the cervix, into an extra-uterine cyst containing the foetal remains. It may, however, have passed through the opening which was afterwards found near the fundus, but not before meeting with that portion of the remains surrounded by the expanded but flaccid uterine walls.

I was naturally, I think, rather inclined to disbelieve the history of rupture of the uterus, from such an accident, to a degree sufficient to allow the child to escape into the abdominal cavity, since the subject was alive and before me. I sought to explain the unusual condition by one of the following hypotheses, viz.: *First*, that the pregnancy had been an extra-uterine one and probably of the interstitial variety; that the accident resulted in the death of the child merely, and not in rupture of the gestation sac; that it then remained a harmless body until the patient had become reduced by the fever noted above, when it began to disintegrate from decomposition and be thrown off *per vaginam*, after first ulcerating its way through the uterine wall into the cavity of the uterus; but this could not have been so and the physical condition set down as the result of my examination exist. *Second*, that it was one of those very rare cases of so-called missed labor in which, for some reason, shock of an accident for instance, by which the nervous system is so depressed

that there is not power enough to cause uterine contraction, the product is retained indefinitely within the cavity of the uterus. *Third* (and considered the correct explanation), that the uterus was really ruptured, but that a portion only of the child escaped through the rent, thus preventing by pressure a loss of blood which would otherwise have probably resulted in the death of the patient, and that the portion which projected through the rupture became encysted, thus forming a cavity continuous with the uterine cavity, the whole mass remaining harmless until through the interference of an exhausting disease, decomposition set in, and it began to poison the patient. It is not necessary to offer an explanation, if the latter hypothesis be correct, why the uterus did not contract and expel its contents, because it is well known that in the event of a rupture occurring during labor the pains immediately cease. But in any event expulsion could not have been accomplished here with the child held fast in the rent. Then, I think, the fact that the patient came so readily out of the collapse and recovered so quickly, and that the child lived so long (it is said to have lived three days), prove pretty conclusively that there was no great blood loss, and that the child did not escape entirely from the cavity of the uterus. The child dies very soon after it is expelled into the abdominal cavity for two reasons, viz., maternal hemorrhage, and interference with the function of the placenta and cord. Hemorrhage did not occur, if my theory is correct, for the reason stated above, and the functions of the placenta were not interfered with at once because it was not separated from the uterine wall suddenly, nor compressed as would have been the case had the uterus been empty and contracted.

My advice to the patient was that she submit to an operation for the removal of the decomposing mass, as I considered that she was suffering from slow septic absorption. The operation I suggested was dilatation of the os uteri and removal of the dead product *per vias naturales*. This I looked upon as the most feasible operation, for the reason that it seemed to be of such easy access through that channel, and therefore the one which would be attended by the least amount of danger. Removal by laparotomy would have been most hazardous, since it would have been necessary to open the cyst, and therefore the old rupture of the uterus. There would then have been a fistulous opening in the uterine wall, which would probably have been closed with difficulty, if at all. Moreover, the sac would very likely have ruptured, thus precipitating the contents into the peritoneal cavity. This, of course, would have been a grave complication, as the decomposing material would have been removed with difficulty and danger. Against removal through the os uteri was the possibility, if not probability, of rupture of the sac containing that portion of the fetus outside the uterus and expulsion of the contents into the abdominal cavity. This might have necessitated laparotomy for the cleansing of the peritoneal cavity. The patient, however, refused at that time to have the operation performed, and returned to her home.

December 16, 1881, she again presented herself at the dispensary, and exhibited undoubted evidence of septic absorption in rapid pulse, evening rise of temperature, and night-sweats. Examination now showed the mass to be much lower in the hypogastrium, and apparently smaller than at the previous examination. The cervix was, however, of the same length and still hard, with no tendency towards dilatation of the os. The sound revealed the dead product to be nearer the os, and altogether this examination served to confirm my former opinion that the product was largely contained within the uterine cavity, and that it could be removed through the os and vagina. This opinion was

strengthened by the fact that there had been evident contraction of the walls surrounding the mass. She still refused to submit to the operation, and returned to her home. Her health continued to depreciate, and she was glad, on January 3, 1882, to enter the gynecological ward of the Hospital of the University, in charge of Dr. Goodell.

After careful examination, Dr. Goodell confirmed, in the main, the opinion expressed above as to diagnosis and treatment, and two days later introduced into the os uteri one sponge and four laminaria tents. Next day the patient was anesthetized and the tents removed, when an effort was made to remove the fetus. A fenestrated polypus forceps was passed into the cavity and made to grasp the contents; this was readily done, but the removal was not so easily accomplished, for when traction was made it was found that the fetus was held firmly somewhere, and that it was so disintegrated that only the portion within the grasp of the forceps could be withdrawn with the instrument. This was repeated a number of times, each withdrawal of the forceps bringing away a bone or some broken-down soft tissue. A discharge of about a pint of very fetid thin fluid took place at this stage of the operation. The os was now becoming so small from contraction of the cervix that the forceps could scarcely be made to pass, and an effort was made to secure further dilatation by the use of Molesworth's dilator. But it would not work, because it was out of order from long disuse. The only thing left to do was either to introduce another set of tents and wait until they had dilated the cervix sufficiently, or incise the neck to the vaginal junction. The latter was done. The danger of septic absorption from such a proceeding was fully considered, but it was decided that to introduce another set of tents, let the patient come out of anesthesia and wait for their slow dilatation would be the greater evil. Before and after the incision, the parts were thoroughly disinfected by injections of a permanganate of potash solution. The same polypus forceps were now more readily introduced into the cavity and the mass broken up. This was followed by a profuse, thin, bloody, purulent discharge of the most fetid character. An injection of the permanganate solution was now made into the cavity of the uterus until it returned unchanged, when another effort was made to remove the contents. After working for more than half an hour, only a part of the product was withdrawn. At this stage of the operation considerable hemorrhage occurred, and this was increased with each endeavor to dislodge the mass from its nidus. For this reason, and because the patient was becoming weak (she had now been under ether one and a half hours), it was thought prudent to discontinue further efforts for the present, and to depend upon antiseptic injections and contraction of the uterus to remove the remainder, or, at least, to allow the patient to recover from this desperate condition and gain strength to stand a second effort after the mass had undergone further disintegration. There was also a fear of rupturing the cyst containing that portion outside of the uterine cavity by further efforts.

The patient came out of the anesthesia slowly, and in a state bordering on collapse, in which condition she remained for nearly twenty-four hours, when she gradually reacted. During the next four days there was a very fetid fluid discharged from the cavity of the uterus, together with some debris from the decomposing mass. The patient had to be removed from the ward on account of the odor. The treatment was supporting, with very frequent irrigation of the vagina and uterine cavity with antiseptic solutions.

On the fifth day after the first operation, the patient evidently suffering from septicæmia, and there being

no marked effort on the part of the uterus to throw off the remains, she was again etherized, and another attempt was made to remove them. It was found that time had somewhat disintegrated the contents, and that, therefore, removal would be more easily effected. Bone after bone, and occasionally a piece of soft tissue, were withdrawn, until, at the end of about an hour, the cavity was almost entirely emptied. I say almost entirely, because it seemed impossible to get every small bone away, and for several weeks afterwards an occasional bone would be thrown off *per vaginam*. The cavity was thoroughly washed out with the disinfecting solution, and an examination made to discover the seat and extent of the rupture.

The cavity of the uterus was large and rough, and in the right side of its body there was discovered an opening through which two fingers could be readily passed into a cavity beyond.

The recovery of the patient was slow; indeed, her life was despaired of for weeks, during which time she suffered from numerous pyæmic abscesses. One of these abscesses was post-ocular, and resulted in the loss of the eye. She finally left the hospital, restored to health.

Removal of a Mammary Tumor and of Enlarged Axillary Glands; Primary Union.—DR. W. H. PARISH exhibited the specimens and read the following history. The patient from whom the specimens presented were removed is a lady of very slight stature, sixty-two years of age, and the mother of several children. There is no history of cancer in her family.

About twenty-five years ago she noticed a hard lump in the axilla, about the size of a partridge egg, painless, though tender on pressure. It was first noticed during a period of lactation. Subsequently she was again confined and passed through the usual time of lactation with a slight increase only in the size of the axillary tumor. For about twelve years after the first appearance of the axillary tumor she never noticed a lump in the breast. About twelve years ago, however, she, for the first time, recognized the presence of a mammary mass, then about the size of a partridge egg. This was about the menopause; at that time she lost in flesh, though her general health remained good.

The mammary tumor increased in size very gradually; continued free from pain, except when something would press unduly against it. About twelve months ago she thought the tumor had begun to increase in size a little more rapidly, and occasionally gave a sensation of soreness. This change in the tumor was ascribed by the patient to carrying in her arms a grandchild.

At the time of the operation the tumor in the breast was about the size of a small lemon, very hard and somewhat nodular, and was at the upper and outer border of the gland. It was perfectly movable over the pectoral muscle, and presented a distinct elevation above the general skin surface. The skin was not entirely movable over the mass, but was not hardened or otherwise altered in character. There was no nodular involvement of the integument. The superficial veins were not enlarged. The nipple was not retracted; seemed entirely normal, and no fluid could be pressed out of it.

There were three enlarged axillary glands, the largest very hard and a little larger than a partridge egg. There was no enlargement of the glands above the clavicle. Owing to the long duration of the masses, their entire mobility, the freedom of the skin from nodular infiltration, the absence of retraction of the nipple and of oozing from it, and also owing to the evident atrophy of the mammary gland, I concluded not to remove the entire breast, but only the tumor, including those of the axilla, and to remove also the

integument overlying the mammary tumor. This I effected by an elliptical incision, and then extending the incision to the axilla, removed three enlarged lymphatic glands. It was not necessary to ligate any vessel; the oozing, which was not great, was stopped entirely by the use of hot water. The incision was about seven inches long. The edges were approximated by deep silk sutures. A few strips of rubber adhesive plaster were applied, and all covered with a layer of salicylated absorbent cotton, and the chest surrounded with a flannel binder. This entire dressing was allowed to remain until the fourth day, when, on removal of the cotton, it was seen that primary union had been secured throughout the entire incision. There was neither hardness nor swelling to indicate inflammation. On the sixth day the sutures were removed, and on the tenth day the patient sat up. No medicine of any kind, not even an anodyne, was given during the entire treatment.

The long duration and small size, the normal appearance of the nipple, the freedom of the skin from pitting and nodular infiltration, and the mobility of the mammary tumor over both the pectoral muscle and on the mammary gland, have led me to hope that the growths are fibromata, but the enlargement of the axillary glands and their induration make me fear carcinoma.

Microscopical Examination by Dr. Henry Beates, Jr.—The specimen presented by Dr. Parish is of unusual pathological interest. When it is remembered that the growth was present for nearly thirty years without undergoing a noticeable change, and only during the last year occasioned suffering and was accompanied with axillary involvement, the question of malignancy suggests itself, especially as the clinical history almost forces the diagnosis of adenoma. As many representative pathologists incline to the belief that typical mammary adenomata do not undergo carcinomatous degeneration, and many assume a conservative or non-committal position; this instance is of unusual interest, and demands close study. Sections were made through the mass and including the cutaneous surface. The skin, so far as the stratum corneum and rete mucosum are concerned, is normal, but in the corium are areas of inflammatory changes. The radicles of several of the vascular papillæ are choked and surrounded by numerous embryonic cells and inflammatory corpuscles. The larger vessels are in a like manner involved, and the tissue in their immediate proximity infiltrated. The pars reticularis, where it becomes continuous with the subcutaneous connective tissue, is, in many places, the seat of proliferated connective-tissue corpuscles.

The *glandular structure* shows beautifully its purely adenoid character. The acini, although filled with cells and almost hidden from view, are, with care, easily distinguished. The interacinous connective tissue is hyperplastic. The hyaline membrana propria is partially destroyed and the acini filled with degenerated epithelial cells and cellular elements of increased size, possessing many nuclei. Some of the acini have the membrana propria entirely destroyed. The lymph spaces are occluded by cells, multinucleated and of increased size and irregular contour. The interacinous fibroid tissue presents incipient formation of stroma and aggregations of cells.

The axillary gland is completely altered in its structure, and instead of the mass of lymphoid cells occupying large spaces, bounded by the characteristic fibrous stroma with its triangular basal form, we have typical carcinomatous structure. Fibroid stromata joining at acute angles, forming numerous interspaces filled with irregular multinucleated cells, characterize the degenerated gland as carcinomatous. This fact, in conjunction with the changes seen in the mammary gland,

proves conclusively that the breast tumor was originally a typical adenoma, which, after thirty years, began to undergo malignant degeneration, and became a centre from which the axillary glands were infected.

DR. ROBERT P. HARRIS remarked that a point of great interest in the history of this tumor was the long period during which it remained dormant. He had had under observation a case in which a mammary tumor had remained perfectly dormant for seventeen years, during which two pregnancies occurred. After the second labor the tumor commenced to enlarge, and became painful; an operation for its removal was performed some months later, when it had attained the size of a duck's egg. A chain of nine enlarged glands was removed with the tumor. The tumor recurred in the same breast, and was followed by one in the other breast, and numerous hard nodular growths over the entire body. Her death was due to this cause.

Two aunts of this patient, living in the South, had died of cancer. A sister had a tumor in the abdominal wall, which was allowed to attain the size of a door-knob without interference. At that time Dr. Agnew and other surgeons were opposed to the advisability of an operation. After a year the tumor commenced spontaneously to discharge a purulent matter. It was then successfully removed by Dr. Agnew, who pronounced it an encephaloid growth. It had made no attachments to the underlying vital tissues, and has shown no signs of returning. Two years have elapsed since the operation.

NEW HAMPSHIRE MEDICAL SOCIETY.

Ninety-second Annual Meeting, held at Concord, June 20 and 21, 1882.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 20TH. — The Society convened in Union Hall, at 11 o'clock A.M., with the PRESIDENT, DR. H. B. FOWLER, of Bristol, in the Chair, and was opened with prayer by Rev. Mr. Parkhurst, of Concord.

The roll of members showed one hundred and thirty present, and eighteen new members were admitted.

The usual committees for the session were appointed by the President, and the routine business of the programme occupied the time until 12 o'clock, when the PRESIDENT delivered

THE ANNUAL ADDRESS,

as is prescribed by the by-laws of the Association. He referred to the general prosperity of the Association, its harmonious working for the good of the profession, and referred to the necrology of the past year in fitting terms; afterwards he referred to the relations existing between the profession and the pharmacist, and condemned in unsparing terms the ethics of those who allow their names to be used in the public recommendation of elixirs, peptones, mineral waters, wines, etc., and withal with so much humor that his audience could not refrain from laughter from the ridiculous position in which such practices placed the profession.

The address was well received, and it was very evident that the country physicians, while holding fast to all pharmaceutical preparations that prove to be of actual worth, have but little sympathy with those who are ever ready to append their names to drugs, not official, and articles of doubtful utility, even though they hold a chair in some of our medical colleges or may be editors of some medical journal.

DR. CHARLES F. LESLIE, of Sunapee, read a

REPORT ON PRACTICAL MEDICINE,

devoting a large portion of the same to a consideration of *typhoid fever*, which has prevailed in his locality, giving some of his observations and conclusions.

He remarked that in the past eight years he had treated cases of typhoid fever in every month of the year, and among the old and young as well as the middle-aged.

The town of Sunapee is located on the shores of a lake of the same name, the water of which is very clear and cold, is 1200 feet above the level of the sea, and with very little alluvial deposit. The principal village of the town is situated at the outlet of the lake, and it has been observed by the Doctor that when the water in the lake was the highest the people in that vicinity suffered most from typhoid fever. It did not appear in his paper that the water of the lake was used for domestic purposes, therefore it would seem to be a coincidence rather than a cause of the disease.

DR. H. M. FIELD, Professor of Materia Medica at Dartmouth Medical College, read an essay on "*The Balsamic*," that was replete in character, and any mere abstract would fail to do the paper justice.

DR. E. F. MCQUESTIEN, of Nashua, read the *Report on Surgery*, giving a review of the legal case of *Holt v. McQuestien*, tried in Hillsborough County, in 1881, for alleged malpractice, in which the verdict was given for the defendant, and several other surgical cases where the ankle-joint was injured. He recommended that the Society prepare a new law which will oblige those parties bringing suits for malpractice to give bonds to indemnify the defendants if their charges are not sustained.

DR. G. L. MASON, of Laconia, delivered an oration on the *Now and Then* of the medical and surgical methods of the orthodox practitioners. He spoke of some of the remarkable cures effected by the heroic treatment of old, and then in a very happy manner contrasted the therapeutics of disease to-day with that of fifty years ago.

DR. M. T. STONE, of Troy, read a dissertation on *Tobacco*.

DR. H. M. FELT, of Hillsborough, submitted an essay on *Emetic Medication*, which was read by its title and referred to the Committee of Publication.

DR. D. P. GOODHUE, of Springfield, reported the death during the last year of Dr. A. B. Hoyt, of Grafton; Dr. E. K. Webster, of Pittsfield; Dr. Harrison Eaton, of Merrimack; Dr. John A. Dana, of Ashland; and appropriate obituaries were read and referred.

DR. SMITH, of Hanover, exhibited a "*horse-shoe*" kidney, and read an essay upon the subject.

DR. I. A. WATSON, Secretary of the State Board of Health, read a paper on

STATE MEDICINE,

recommending to the medical profession the educating of the people upon sanitary and hygienic matters as the only effectual method of the prevention of diseases that are produced by bad sanitary conditions. He pointed out many of the dangers of improper ventilation of dwelling houses, school-rooms, churches, public halls, etc.; also the serious results that follow water contamination, and the great danger of pollution of wells and springs from the filthy conditions that surround many houses. Many instances and illustrations were given, showing that the poison of typhoid fever and some other diseases might be conveyed a long distance in water currents even under ground and then produce disease in some other localities. He asserted, with proof, that the popular idea that ice was always pure because the process of freezing eliminated its organic impurities, was a false theory, and that ice from any source but that of pure water was dangerous to health. He believed that the public entertained false ideas concerning contagious diseases; that scarlet fever and diphtheria should always be as promptly and efficiently isolated as small-pox, since they were

infinitely more fatal diseases. The paper appealed strongly to the profession to endeavor to correct many erroneous ideas, and to leave no efforts undone to prevent disease and to secure the greatest possible good for the people.

WEDNESDAY, JUNE 21ST.—The Society met at 8 o'clock A.M., and reports of district societies, delegates, and other routine business was in order until 9 o'clock, when, by a by-law of the Association, the election of officers takes place.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—A. H. Crosby, M.D., of Concord.

Vice-President.—J. W. Parsons, M.D., of Portsmouth.

Treasurer.—D. S. Adams, M.D., of Manchester.

Secretary.—G. P. Conn, M.D., of Concord.

Anniversary Chairman.—A. P. Richardson, M.D., of Walpole.

Executive Committee.—Drs. J. W. Parsons, of Portsmouth; P. A. Stuckpole, of Dover; and M. W. Russel, of Concord.

The *Treasurer's Report* was read and accepted. It showed the finances of the Society to be in good condition. The Treasurer was directed to notify all who were in arrears, and to prepare a list of the members for publication in the Transactions for this year.

Several cases were reported. The Society then adjourned to meet in Concord, the third Tuesday in June, 1883.

CORRESPONDENCE.

POISONOUS EFFECTS OF SALIVA.*

To the Editor of THE MEDICAL NEWS.

SIR: In a report of the proceedings of the West Philadelphia Medical Society, published in THE MEDICAL NEWS of May 27 (p. 585), I find the following remarks by Dr. Formad:

"Dr. Sternberg, of the U. S. Army, made recently some experiments, by injecting saliva under the skin of dogs, in the pathological laboratory of the University of Pennsylvania, and concluded that the poisonous effects were produced only by the saliva of persons who did not smoke, or who lived in hot climates. 'But,' said Dr. Formad, 'I am an inveterate smoker, and my saliva killed as promptly as any one's.' A student of mine, Mr. Claxton, made a number of experiments, and could not corroborate some of Dr. Sternberg's conclusions. On the contrary, he found that any saliva, even that of animals, promptly killed those experimented upon."

I am very sorry that my friend, Dr. Formad, has made it necessary for me to correct this very inaccurate statement of my experiments and deductions from the same.

I did not experiment on dogs in the pathological laboratory of the University of Pennsylvania, nor did I conclude that poisonous effects were produced only by the saliva of persons who did not smoke or who lived in hot climates.

During the progress of my experiments, which were made upon rabbits, I considered the possibility that the use of tobacco might neutralize the virulence of saliva, and consequently made notes as to whether or not those persons who furnished saliva for these experiments used tobacco. The result showed that this habit was without influence, and no mention is made of tobacco in my published report (*National Board of Health Bulletin*, April 30, 1881). If Dr. Formad had taken the pains to read this report, he would have found the following:

"The saliva of four students, residents of Baltimore (in March), gave negative results; eleven rabbits injected with the saliva of six individuals in Philadelphia (in January), gave eight deaths and three negative results; but in the fatal cases, a less degree of virulence was shown in six cases by a more prolonged period between the date of injection and the date of death. This was three days in one, four days in four, and seven days in one.

Query. Is there any recognizable peculiarity in the saliva which exhibits the greatest degree of virulence?

Answer. In the case of Dr. Sternberg, whose saliva shows an exceptional virulence, the teeth are sound, the secretions of the mouth normal in physical properties and reaction, and the general health good. There is, perhaps, an unusual flow of saliva, but no other noticeable peculiarity.

Query. Is there any plausible hypothesis by which this difference in virulence can be explained?

Answer. This question will require for its solution more extended experiments. In the meantime it may be mentioned, as having a possible bearing upon the subject, that Dr. Sternberg has been engaged to a considerable extent, during the past two years, in studies which have brought him in contact with septic material. Dr. Formad, of Philadelphia, whose saliva killed (after a longer interval) two rabbits, is pathologist to a large hospital, and consequently is constantly brought in contact with septic material. Mr. N. and Mr. B., whose saliva killed all the rabbits operated upon, (four), are residents of seaport towns in Cuba."

Finally, Dr. Formad says that Mr. Claxton, a student of his, made a number of experiments, and could not corroborate some of Dr. Sternberg's conclusions. "On the contrary, he found that any saliva, even that of animals, promptly killed those experimented upon."

How the additional fact that saliva of animals kills rabbits, when injected beneath their skin, is opposed to the facts reported by me with reference to the lethal effects of hypodermic injections of my saliva, I fail to see. I do not refer in my report to the effect produced by the subcutaneous injection of saliva, other than that of man, not having made the experiment. But I have experimental evidence that "any saliva," that is to say, all saliva, does not kill rabbits, for, as stated in the above quotation from my report, I had three negative results in Philadelphia and four in Baltimore with human saliva other than my own. I have, also, recently introduced the sputa of several tubercular patients beneath the skin of rabbits without producing fatal septicæmia. Whether these rabbits will become tuberculous, remains to be seen, and will be duly reported when the experiments are completed.

Yours respectfully,

GEO. W. STERNBERG,
Surgeon U.S.A.

FORT POINT SAN JOSE, SAN FRANCISCO,
June 8, 1882.

MEDICAL TESTIMONY FOR THE DEFENCE IN THE MALLEY CASE.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: In your editorial criticism of my testimony in the "Malley case," in your issue of June 24th, you have done me injustice, unintentionally, I have no doubt, as you must have derived your information from the notes of the testimony in the newspapers. Most of these notes were inaccurate in many particulars.

¹ The possibility that this septic condition of the secretions of the mouth may bear some relation to the protection which these Cubans and myself enjoy against yellow fever, which is a disease presenting many points of resemblance to septicæmia, has occurred to me, and without, at present, laying any great stress upon this possibility, I think it worthy of further experimental consideration.

In the first place I made no comments "on the conduct of the chemical investigation."

Second. You have mistaken the place where the examination of the hymen was made, for that at which the post mortem was held by Dr. Prudden; the first being held in a low, dark basement used as a prison in West Haven; the second at the shop of the undertaker in New Haven. I did "disapprove of the dark-room, or morgue, where the autopsy of the hymen was made."

Third. I did not admit on cross-examination the absence of inflammation of the stomach in cases of arsenical poisoning, but stated the fact with the authorities on my direct examination.

Fourth. My attention, while on the witness stand, was not called by either the prosecution or defence to the subject of arsenic eating. If it had been, I should have said that the Styrians become gradually accustomed to its use, and consequently do not suffer from its toxic effects.

Fifth. I did not maintain the "constancy of inflammation of the stomach as a result of arsenic in toxic doses;" but stated that inflammation of the stomach was sometimes absent, and gave the reasons for it, with the authorities.

Very truly yours,

P. A. JEWETT.

NEW HAVEN, June 29, 1882.

NEWS ITEMS.

BROOKLYN.

(From our Special Correspondent.)

THE ST. JOHN'S HOSPITAL.—The new structure of this hospital was formally opened June 24th by Bishop Littlejohn, assisted by numerous clergy of the Protestant Episcopal Church. The building just completed is a five-story brick and stone chapel and westerly wing, 139 feet in length and 95 feet broad. The cost was \$80,000 exclusive of land. It will accommodate 125 beds, open to all irrespective of creed, sex, or age.

THE NEW CODE.—At a recent meeting of the Medical Society of King's County, the question of endorsing or rejecting the new Code of the State Medical Society was brought up. No vote was taken on its merits, but its consideration was ordered to be made a part of the regular order of business of the regular meeting in October next.

LONDON,

(From our Special Correspondent.)

DAVY'S RECTAL ARTERY-COMPRESSOR.—I am not aware whether Mr. Richard Davy's rectal compressor, or lever, has found any favor with American surgeons, but it has been used now on many occasions in England, and, on the whole, with signal success. Having just witnessed a fatal accident with it, however, I feel compelled to give a note of warning concerning its use. Lest some of your readers may not be familiar with the lever, let me just say that it is a well-turned straight circular wooden rod, about the circumference of the little finger, and two feet in length. It is used by passing about seven inches of it (in an adult) up the rectum and towards the side to be operated upon; on then raising the handle or part outside the anus, the upper end compresses the common iliac artery just in the depression between the bone of the sacrum and ilio-pectineal line. Amputation at the hip-joint, or high up in the thigh, can then be performed without any arterial hemorrhage, and the vessels are controlled with remarkable ease. I have seen the lever used on several occasions, and there can be no doubt that it answers admirably, and that, when

properly applied to the artery, there need be no anxiety on the score of hemorrhage.

In Mr. Davy's little *brochure* (surgical lectures) details of several cases in which it has been used will be found. The lever has lately been modified, having been made smaller than it was originally, and it has been provided with a gum-elastic sheath—this is flexible, and is easily passed into the rectum and takes the direction of the gut, and the rigid rod is then passed into the sheath. As the case to which I am about to refer has not been made public, I will not mention any names; but, as I assisted at the operation, I can vouch for the accuracy of the facts. The patient was a man of middle age, on whom an operation for ununited fracture high up in the shaft of the femur had been performed, without success, and amputation of the limb was determined on. Mr. Davy was requested to use his lever. This he did, first of all passing up an injection of olive oil, then the flexible sheath, and lastly the wooden lever. There was no difficulty experienced in all this, but it was found necessary to raise the handle of the lever more than is usually the case before all pulsation in the femoral artery ceased. The vessel was completely controlled; absolutely no arterial blood was lost; and at the close of the operation we all congratulated ourselves on the success of the lever. The patient progressed favorably for twenty-four hours. Symptoms of peritonitis then made their appearance, and the man rapidly sank and died. At the autopsy the usual signs of peritonitis were found, and the cause was detected in a perforation of the rectum just seven inches from the anus. The rectum elsewhere appeared healthy; there was no sign of ulceration about the perforation, and there can be no reasonable doubt but that it was produced by the end of the lever. I should say it was the right common iliac artery that was compressed. It is commonly stated that the same thing has occurred in the practice of an eminent surgeon in one of our large northern towns, but the case has not yet been published. But whether or no, it has now happened in the hands of him who originated and has closely studied this method, and is more experienced than any one else in its employment. Mr. Davy had no suspicion at the time of the operation that anything had gone wrong. The only other mishap with the lever that I am aware of is the impossibility of passing it sufficiently high up the rectum. This once happened to myself. After an oil injection, and using all the force I considered safe, I quite failed to pass the lever more than four inches. After the death of the patient, we found a sharp bend of the rectum, which rendered it impossible to pass the lever, even on the post-mortem table. Although I have been a warm supporter of the lever hitherto, I now feel that its use must be abandoned. It is now demonstrated that at any rate for compressing the right common iliac artery it is *dangerous to life*, and considering that there are other means of controlling the vessels, which in skillful hands are not unsuccessful, I shall never again use the lever. Whether it may be safely used in all cases for compression of the left artery, is another question as to which I should not like to dogmatize.

MEDICAL ADVERTISING IN THE LAY PRESS is the ethical discussion most heard just now. A short time ago nearly one whole side of the *Times* was occupied with advertisements of medical works published by Smith, Elder & Co. The matter has been taken up by the *Lancet* and by the College of Physicians, and it is hoped that this flagrant breach of professional conduct may lead to such an expression of opinion as will check the practice altogether. We have no wish to see medical works puffed by the same artifices which are used to sell cheap sherries, mineral waters, and whiskey.

VIENNA.

(From our Special Correspondent.)

DEATH OF PROF. CARL MAYSHOFER.—Carl Mayshofer, Professor of Gynecology, in the Vienna University, died upon June 3, in his forty-sixth year, at Franzensbad. He was born June 2, 1837, in the city of Steyer, his father being a physician. He completed his gymnasial studies in Kremsmünster, where he studied zealously the natural sciences, especially astronomy. After completing his medical studies in Vienna, he became an operative pupil of Schuh, afterwards Arlt's assistant. During this time, he wrote a noteworthy treatise upon ophthalmology. Later, he determined to devote himself exclusively to obstetrics and gynecology. As the assistant in the first obstetrical and gynecological klinik in the Allgemeines Krankenhaus (Carl Braun's wards), he published a paper which attracted very general attention. He sought to investigate the etiology of the puerperal process, and to demonstrate the parasitic nature of childbed fever in this brochure. Such a publication, twenty years ago, is sufficient to establish the high intellectual character of the man. Among his numerous more recent literary ventures may be named the following: "Ueber die Anwendung des Secale Coruntum in der Geburtshülfe," "Ueber die Entstehung des Geschlechtes beim Menschen," "Gegen die Hypothese, die menschlichen Eierstöcke enthielten männliche und weibliche Eier," "Eine Bemerkung zu J. C. Dalton's Ansicht vom Corpus luteum der Schwangeren," "Die Ueberwanderung der Eier," and finally an article in Pitha-Billroth's text book, "Ueber Sterilität, Entwicklungsfehler und Entzündungen des Uterus." Notwithstanding all this, notwithstanding his high general culture, he was not successful in obtaining the position for which he most earnestly strove. Several years ago, he went to Russia to obtain the recognition denied him at home. In Liflis and St. Petersburg, though acknowledged as a most skilful gynecologist, his life was rendered so unpleasant by professional jealousies, that he returned to Vienna to devote himself almost exclusively to literary work. Franzensbad became his final home, a short time since, when a severe disease of the liver ended his useful, fruitful, and brilliant life.

PROF. DUCHEK'S CHAIR OF INTERNAL MEDICINE.—There still exists great difficulty in the selection of a successor to Duchek. Prof. Nothnagel, of Jena, was warmly supported at the last meeting of the College of Professors. The Department of Education and the College of Professors are not adverse for once, in a great number of years, to a foreigner.

PRIVAT DOCENT DR. HANS CHIARI'S APPOINTMENT AS EXTRAORDINARY PROFESSOR OF PATHOLOGICAL ANATOMY IN THE UNIVERSITY OF PRAGUE.—Dr. Hans Chiari very unexpectedly has been appointed Extraordinary Professor of Pathological Anatomy in Prague, and Prof. Eppinger to the same chair in the University of Graz. This change in the expected order of events has created the liveliest curiosity in South German medical circles.

BILLROTH'S "RUDOLFINERHAUS."—One of Prof. Billroth's pet schemes for the education of female nurses has been carried into execution by the opening of the so-called "Rudolfinerhaus" upon the 31st of May. A number of soldiers, wounded in the existing insurrections in Bosnia and Montenegro, fill the wards. Baroness V. Villo-Secca, acts, as Superintendent, Prof. Billroth, the founder of the Institution, as Director, and Dr. Gersuny as Chief Surgeon.

CELEBRATION IN HONOR OF BILLROTH'S DECLINATION OF LANGENBECK'S CHAIR IN BERLIN.—The students, privat docents, and friends of Prof. Billroth are

preparing for a grand ovation to be tendered him in honor of his recent refusal to leave Vienna in order to occupy Langenbeck's vacant chair in the University of Berlin. A torchlight procession composed of medical students, accompanied by Strauss's orchestra, will conduct Prof. Billroth to the reception hall, when ceremonies befitting the occasion, will be observed.

THE NEW YORK COUNTY MEDICAL SOCIETIES AND THE NEW YORK CODE.—Delaware and Chemung Counties are the latest New York County medical societies to repudiate the new Code. The Tompkins County Medical Society is the only County society which has formally adopted it, and it stands alone in this action. Twenty-three of the sixty County societies of the State have so far condemned the new Code.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending June 24, 1882, indicate that cholera infantum and cholera morbus have greatly increased; that erysipelas, inflammation of the bowels, and intermittent fever have increased; and that scarlet fever, influenza, and pneumonia have decreased in area of prevalence.

Small-pox was reported present during the week ending June 24, and since at six places, as follows: At Detroit and Flint, at Battle Creek (one new case), in Polkton, Ottawa County (one new case), in White Cloud, Newaygo County (four cases in mild form, all having been vaccinated this spring), June 22; at Grand Rapids (three new cases June 28, thirty cases in all, including convalescents; one death June 28).

HEALTH IN PROVIDENCE, R. I.—Dr. E. M. SNOW, Superintendent of Health, reports 169 deaths in Providence during the month of May, or 3 less than in the preceding month, and 26 less than in May, 1881. Of the total number, 44 deaths were of children under five years of age. Zymotic diseases caused 21 deaths, which is equal to 12.42 per cent. of the total mortality. This percentage indicates a favorable condition of the City's health. There were 29 deaths from consumption, which heads the list in point of numbers. Then follow in order: pneumonia, 19 deaths; diseases of the heart, 14; old age, 9; convulsions, 8; bronchitis, enteritis, typhoid fever, and whooping-cough, each 6; apoplexy and inflammation of the brain, each 4 deaths. There were 3 deaths from scarlet fever, and 1 each from measles and diphtheria. Small-pox caused no deaths. It is pointed out that not a single death was caused by accidents, which is an extremely rare circumstance. The mortality from pneumonia in this and the two preceding spring seasons has been above the average, and has been accounted for by the cold, damp weather in these years.

HARVARD MEDICAL SCHOOL.—Dr. David W. Cheever has been elected to the chair of the Professorship of Surgery, vacated by the resignation of Dr. Bigelow. At the Commencement held June 28th, Dr. Bigelow was elected Emeritus Professor of Surgery and received the degree of LL.D. from the University.

THE CENTRAL ALUMNI COMMITTEE OF THE UNIVERSITY OF PENNSYLVANIA, which has been formed to co-operate and advise with the trustees in the future management of the institution, was formally organized on June 28th, and will at once take an active interest in University affairs. The committee elected the Rev. James W. Robbins, D.D., its Chairman. The members drew lots for their terms of office. The representatives of the medical department will serve as follows: Drs. John H. Packard and Traill Green for one year,

C. H. Mastin and Wm. H. Van Buren for two years, S. Ashhurst and I. Minis Hays for three years, A. H. Smith and W. H. Klapp for four years, Caspar Wister and John F. Meigs for five years.

OPHTHALMOSCOPIC MIRROR, WITH DOUBLE FOCUS.—In order to overcome the inconvenience of using an ophthalmoscope with a mirror of a single focus for the examination of the direct and inverted image, Dr. Galewski has devised an ophthalmoscope which has a small mirror of 8 centimetres focus inserted in the centre of the large mirror of 25 centimetres focus. —*Le Progrès Méd.*, June 3, 1882.

WHITE LEAD MANUFACTURE.—Attention has been called to the considerable increase in the number of persons engaged in the white lead manufactories at the East-end of London who became victims to plumbism in its various forms. Agitation on this subject is by no means a new phenomenon. It has frequently been ventilated in these columns; indeed, so deeply did we feel the importance of it that in 1874 our Sanitary Commissioners reported on it specially. But though attention has persistently been drawn to the matter, little has been done towards the prevention of the evil. After each agitation the manufacturers and inspectors of these lead works remain for a time on the alert, and the necessary precautions are adopted to protect the workpeople; but in course of time this vigilance is relaxed, and cases of lead-poisoning become more and more numerous till public indignation is again aroused. The process of white lead manufacture is divided into six stages: the making the lead plates, the exposure of these plates to the fumes of acetic acid, the removing the deposited carbonate of lead from the plates, levigating and grinding it, drying it, and finally packing it. The most dangerous parts of the work are the picking off and handling the crusts from the lead plates, and the packing. In the latter process the dry and brittle white lead is removed from the drying-room in baskets carried on the heads of the operatives to the packing-room, where it is broken up and placed in barrels ready for export. The dust arising from the highly dried white lead speedily covers the clothes, hands, and face, and, unless respirators are worn, is inhaled. Women and young girls are mostly engaged in this part of the business, and this is the reason why females suffer apparently more than males from the effects of lead. The same holds good with regard to the removal of the white lead from the plates, this also being performed by females. The least dangerous part of the business—the levigating and grinding whilst wet, and the drying, which is not dangerous if respirators are used—is performed by men. Although instances of extreme susceptibility to the influence of lead have come under our observation, and cases have occurred where severe lead colic has developed a few days after work had been undertaken for the first time in a white lead manufactory, still there is no doubt that if the regular precautions were strictly enforced, together with the suggestions made by our Commissioners relative to the wearing of strong leather gloves by those who are obliged actually to handle the white lead, and the necessity of wearing respirators during the packing process, the cases of plumbism occurring in the course of the year from these causes would cease to be a matter for consideration. But to attain such a result, constant supervision must be exercised over the operatives. It is not enough for the manufacturer to provide, and the inspector of factories to approve of, the general regulations and appliances, if they are not obeyed or used. An overseer ought to be appointed to each factory, whose sole duty it should be to keep a vigilant eye constantly on the operatives, and insist on the pre-

cautionary measures being carried out to their fullest extent. Neglect or disobedience should be punished by fine or dismissal; and in order to ensure the requisite degree of vigilance on the part of the overseer, his wages in great measure should depend on the immunity attained during the year. Lastly, in all cases where it can be proved that the ordinary precautions have not been rigorously enforced, and cases of plumbism have in consequence been of frequent occurrence, the manufacturer should be proceeded against, and if the case were proved, heavily fined. It is only just that those who by carelessness or greed have brought about such a mishap should be made to suffer in some shape and degree, whilst it is but fair to the ratepayers, on whom the responsibility of ultimately maintaining the broken-down victims of plumbism falls, that the chief offenders should also feel the burden. —*Lancet*, May 6, 1882.

THOUGHT-READING.—A meeting, at which Dr. Crichton Browne presided, and which was attended by a number of scientific and literary men, was held at the Marlborough Rooms on the evening of Saturday last, the 6th instant, to witness an exhibition of the phenomena of "thought-reading" by Mr. Stuart Cumberland. That gentleman, with great promptitude and precision, went through the usual performance of finding articles that had been hidden during his absence from the room, of spelling out words thought of by the subjects of his experiments, and of disclosing the date of birth of several members of his audience. At the close of his demonstrations, Monsignor Capel, Professor Ray Lankester, Dr. Hack Tuke, Dr. Simpson, and others, complimented him on the success which had attended them, and expressed their conviction that his power in "thought-reading" was superior to that of any professor of the art who had as yet appeared in London. Professor Croom Robertson said that, having been a member of a small committee which investigated the pretensions of Mr. Bishop as a thought-reader about twelve months ago, he could testify confidently that Mr. Stuart Cumberland was correct in his interpretations or readings in a larger proportion of instances than Mr. Bishop; and that there was this great difference between Mr. Bishop and Mr. Cumberland, that, while the former always left it to be understood that he was aided in his experiments by an occult force or mysterious influence which he could not himself comprehend, the latter acknowledged that he was aided in all his revelations simply by naturally quick and highly trained perceptive faculties, and that he was guided entirely in his explorations and discoveries by movements in the hands which he held or pressed to his forehead. Monsignor Capel said that "thought-reading" or "willing" is practised in hundreds of drawing-rooms in London; and the chairman expressed his belief that Mr. Cumberland is engaged in a salutary work exposing the impositions of charlatans, and the superstitions of weak-minded enthusiasts. Some spiritualists who were present did not seem inclined to accept Mr. Cumberland's account of his own extraordinary powers, but were evidently disposed to regard him as a clairvoyant, in spite of his disclaimers, and of his plain-spoken denunciations of spiritualism in all its manifestations. —*Brit. Med. Journal*, May 13, 1882.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.